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Adoption of Voluntary CSR Initiatives: Tales of the UN Global Compact

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Thesis presented for the degree of Doctor of Philosophy

The University of Edinburgh

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Declaration

I, Bertha Guadalupe Pérez-Rocha, hereby declare that this thesis has been composed solely by myself and is entirely my own work. Where specific reference is made to other sources, they have been clearly identified and presented. This work has not been submitted for any other degree or professional qualification.

Bertha Guadalupe Pérez-Rocha

August 2018

Abstract

This thesis consists of three empirical studies investigating, from various perspectives, the corporate motivations to join one of the largest voluntary initiatives promoting sustainability: the United Nations Global Compact (UNGC). I employ three different statistical techniques, logistic regression analysis, event history analysis and structural equation modelling. The first study provides evidence from a field experiment on shareholder engagement effectiveness in general and on which tactics are more effective in engaging publicly traded firms. The experiment consists of an invitation letter sent by the Principles for Responsible Investment Clearinghouse, one of the largest worldwide coalition of investors, to encourage companies to sign up the United Nations Global Compact. I use a theoretical model for investor salience in order to understand the impact of the engagement. To the best of my knowledge, this is the first large-scale research on engagement using randomized controlled trials in the academic literature and in practice.

The aim of the second study is three fold. First, most academic literature focuses on how the adoption of the UNGC impacts on the implementation of environmental, social and corporate governance (ESG) performance; this study addresses how ESG performance shapes the CSR strategy, namely, the UNGC. Next, I explore to what extent the ESG performance of firms adopting the UNGC change over time. Finally, this paper investigates whether the existence of controversies is a determinant for joining the initiative. Results show that, in all cases, ESG performance is significant and positively related to the adoption of the Ten Principles. Furthermore, results show that ESG performance differs across different points in time. Contrary to my expectations, controversies have no influence on UNGC membership.

The third and final study examines the effect of the characteristics of the board of directors on the adoption of the UNGC/GRI by US-based firms. I investigate whether and how a CSR oriented board chooses the UNGC/GRI as part of their firms reporting strategy. I also consider the level of environmental and social performance as a mediator for such a decision. Results show that there is a positive and significant relationship between the board and environmental and social performance, and between environmental and social performance and the adoption of voluntary CSR initiatives. This relationship is stronger for social performance and for the GRI.

Overall, this thesis provides further evidence about motivations to join the UNGC. The outcomes of this thesis are of relevance for shareholders and investor coalitions, policy makers, and other groups of stakeholders. Theoretically, this thesis adds to the literature on shareholder engagement, strategy and corporate governance.

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List of Abbreviations

Acronym	Definition
AGM	Annual General Meeting
AUM	Assets Under Management
AW	All World- refers to the FTSE index
BoD	Board of Directors
CDP	Carbon Disclosure Project
CEO	Chief Executive Officer
CEPA	Center for Environmental Policy Analysis
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CO_2	Carbon Dioxide
COP	Communication On Progress
CSP	Corporate Social Performance
CSR	Corporate Social Responsibility
EHA	Event History Analysis
ESG	Environmental, Social and Corporate Governance
GRI	Global Reporting Initiative
HUKFF	The Hermes UK Focus Fund
IAS	International Accounting Standards
ICT	Information and Communication Technology
ICB	Industry Classification Benchmark
IR	Investor Relations
NGO	Non-governmental Organization
NYSE	New York Stock Exchange
PRI	Principles for Responsible Investment
RBV	Resource-Based View
RDT	Resource Dependence Theory
RMSEA	Root-Mean-Square Error of Approximation
SEDOL	Stock Exchange Daily Official List
SEM	Structural Equation Modelling
SMEs	Small and Medium Enterprises
SRMR	Standardized Root-Mean Square Residual
TIAA-CREF	The Teachers Insurance and Annuity Association of America and the College Retirement Equities Fund
TLI	Tucker-Lewis Index
UNEP FI	The United Nations Environment Programme Finance Initiative
UNGC	United Nations Global Compact

CHAPTER 1

Introduction

Launched in July 2000, the United Nations Global Compact (UNGC) is one of the largest global initiatives promoting sustainability through responsible behaviour. The initiative encourages entities to implement Ten Principles covering the areas of human rights, labour, environment and anti-corruption within their normal practices and operations. The UNGC is considered by a number of academics, NGOs and practitioners as a channel for legitimization of practices, enhancing reputation and providing economic benefit and as a major framework for corporate social responsibility (CSR[1]) (Chen and Bouvain, 2009; Kell and Ruggie, 1999; Perkins and Neumayer, 2010; Gilbert, Rasche and Waddock, 2011). However, it has also been criticized for the poor environmental and social performance of its members. Currently, the initiative accounts for over 8,000 small and medium enterprises as well as large multinational firms in a wide variety of industries, and more than 4,000 non-business organizations (e.g. NGOs, academia, and the public sector) in 170 countries and with about 85 local networks. The UNGC excludes a few companies, namely those enterprises with fewer than 10 workers, those in unethical sectors (i.e. tobacco and bombs), and those banned by the United Nations (UNGC, 2015b).

[1] There is no official definition for 'corporate social responsibility'. Furthermore, the concept of CSR has evolved since it was first suggested in the 1950s (Carroll, 1999; Carroll, 2000; Garriga and Melé, 2004). However, there are four aspects that are related to the responsible behaviour of firms, namely economic, legal, ethical and philanthropic responsibilities (Carroll, 1991).

Business participants are required to submit a yearly report, called 'Communication on Progress' (COP), concerning their implementation of the Ten Principles. Members that fail to disclose such information are classified as non-communicating participants and, if the omission is not rectified, companies are delisted from the initiative (UNGC, 2014). Table 1.1 lists the Ten Principles included in the initiative and Table 1.2 describes the assessment categories of the report submitted to the UNGC. In 2014, the UNGC implemented an annual contribution policy (Table 1.3) with the aim of supporting their administrative functions and providing a number of membership benefits (UNGC, 2016a). These benefits include the use of the UNGC "We support" logo, invitation to events, and use of platforms and networks among others.

TABLE 1.1

UNGC: The Ten Principles

Human Rights
Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights.
Principle 2: Make sure that they are not complicit in human rights abuses.
Labour
Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
Principle 4: The elimination of all forms of forced and compulsory labour.
Principle 5: The effective abolition of child labour.
Principle 6: The elimination of discrimination in respect of employment and occupation.
Environment
Principle 7: Businesses should support a precautionary approach to environmental challenges.
Principle 8: Undertake initiatives to promote greater environmental responsibility.
Principle 9: Encourage the development and diffusion of environmentally friendly technologies.
Anti-Corruption
Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

Notes: Adapted from *The Ten Principles of the UN Global Compact* (UNGC, 2016c). Retrieved from https://www.unglobalcompact.org/what-is-gc/mission/principles.

TABLE 1.2

Communication on Progress Assessment

Status	Description
GC Advanced	A COP that meets all minimum requirements and provides information on additional advanced criteria including governance and leadership.
GC Active	A COP that fulfils all minimum content requirements.
GC Learner	A COP submitted within the deadline but does not meet the minimum requirements (1 year limit).
Non-communicating	A company that has failed to submit a COP within the deadline, or fails to submit a COP that meets the minimum criteria after the 12 month GC Learner grace period.
Expelled	A company that is removed from the Global Compact for failing to submit a COP that meets the minimum requirements within 1 year of becoming non-communicating or for other reasons.

Notes: Adapted from *The Communication on Progress (COP) in Brief* (UNGC, 2014). Retrieved from http://www.unglobalcompact.org/COP/index.html

TABLE 1.3

UNGC Annual Contribution

Annual sales/revenue	Annual contribution
Less than USD 50 million	USD 250 (suggested minimum)
USD 50 million - USD 250 million	USD 2,500 - 5,000
USD 250 million - USD 1 billion	USD 5,000 - 10,000
USD 1 billion - USD 5 billion	USD 10,000 - 15,000
Greater than USD 5 billion	USD 15,000+

Notes: Adapted from *Funding Sources* (UNGC, 2016b). Retrieved from https://www.unglobalcompact.org/about/finances.

The most recent version of the UNGC-Accenture Strategy CEO study shows executive support for the Sustainable Development Goals (UNGC-Accenture, 2016); large groups of investors encourage environmental and social reporting through the UNGC (PRI, 2013); and, European financial markets also welcome UNGC membership (Coulmont and Berthelot, 2015; Janney. Dess and Forlanial, 2009). The importance of the UNGC for business appears therefore to be evident. Academic analysis of its development, however, is incomplete. Despite the academic work done so far in terms of why firms adopt the UNGC (Arevalo et al., 2013; Cetindamar and

Husoy, 2007; Pérez-Batres, Miller and Pisani, 2010; Perez-Batres et al., 2012), drivers such as investor pressures, corporate social performance and board of directors have received little attention.

Thus, this thesis contains three empirical chapters addressing particular aspects of the overall question: What drives the adoption of the UNGC? My research methods include a field experiment and secondary data analysis. I employ three quantitative techniques: logistic regression, event history analysis (EHA) and structural equation modelling (SEM).

The first empirical study, "How to Engage Corporates Effectively? Evidence from a Field Experiment of the United Nations", provides evidence of the effectiveness of shareholder engagement on persuading firms to enhance their environmental and social performance and report their results through the UNGC. In recent years, investors have used their ownership power not only to influence corporate governance and financial performance but also to improve corporate commitment to responsible business. A large number of studies in the field of shareholder engagement has focused on the impact of resolutions at annual general meetings (Clark, Salo and Hebb, 2008; David, Bloom and Hillman, 2007; Gillan and Starks, 2007; Ertimur, Ferri and Volkan, 2011). Other studies have focused on the drivers for shareholder salience (Gond and Piani, 2012; Hamilton and Eriksson, 2011; Vandekerckhove, Leys, and Braeckel, 2007), on dialogue with target companies (Ferrero and Beunza, 2014), on impact of engagement (Becht et al., 2010), and also on management attitude towards engagement (Becht et al., 2010; Vandekerckhove, Leys and Braeckel, 2007). Yet, the effectiveness of the tactics employed in the process of engagement remains unexplored.

This paper empirically and theoretically analyses the effectiveness of engagement and of a number of tactics used in engagement letters. The letters were sent by the Principles for Responsible Investment (PRI) Clearinghouse on behalf of a group of investors, representing US$3.3 trillion in assets under management (AUM), to international publicly traded firms to invite them to join the UNGC. As such, my research is based on a field experiments comprising a sample of firms listed on the FTSE All-World index that are not members of the initiative (laggards). In terms of the tactics tested and the number of experimental groups, this is one of the largest experiments in academic research to date.

My results for Chapter 2 show that the business case for this particular engagement strategy is non-existent. My results also show that contacting the chair in addition to the CSR department to invite them to join the UNGC and following up the engagement (i.e. invitation letter) with target companies are the most effective tactics. It is also reasonably helpful to contact the CEO referencing peer companies that have adopted the initiative. These findings are in line with previous research where the preferences of management (i.e. sympathy for sustainable practices) are basic for successful engagement (Becht et al., 2008; Gifford, 2010; Hamilton and Eriksson, 2011). I also find that the engagement process is stronger when firms have a high ex-ante likelihood of signing up to the initiative and are located in countries where concern about environmental, social and governance issues is predominant (e.g. the UK, Germany).

In Chapter 3, "ESG drivers for the Adoption of the UN Global Compact", I study the impact of environmental, social and corporate governance performance on deciding the strategy for CSR disclosure. In a study carried out by Perez-Batres et al. (2012), the authors mention that firms that sign up to the UNGC tend to use it as

'window dressing' mainly to report activities related to community and consumers. These activities involve low rates of investment and by reporting to the UNGC firms gain some legitimacy (Perez-Batres et al, 2012). In addition, Rasche,Waddock and McIntosh (2013) highlight that the aforementioned relationship has received no attention when forecasting the impact of the initiative. In this study, I provide additional evidence on how the level of corporate social performance is related to the adoption of the UNGC and how this level changes over time.

My sample for this chapter consists of all the firms in the FTSE all world index with environmental, social and corporate governance information as provided by ASSET4 for the period 2003-2012. The method I employ for analysis is event history analysis (EHA), which allows me to track firms from the moment of their appearance in the sample until the moment they adopt the initiative, or are censored (disappear from the sample for any reason). I divide the period of study in three subsets: Group 1 (2003-2005), Group 2 (2006-2009) and Group 3 (2010-2012). My results show that CSP is important at the moment of joining the UNGC. However, the dimension of CSP is different for each subset. For Group 1 only the social dimension is important while for Group 2 the corporate governance is also important to some extent. Finally, for Group 3 all three dimensions are relevant but the emphasis is on the environmental score. These findings provide evidence of the changing environment around the adoption of voluntary initiatives such as the UNGC as a strategy for CSR reporting. Furthermore, it offers a rationale for future study of the impact of the initiative.

Chapter 4, "Board Composition, Environmental and Social Performance and the Adoption of Voluntary CSR Initiatives", investigates the link between the characteristics of the board of directors, corporate social and environmental performance and the adoption of the UNGC among US-based firms. Examples such

as the recent Volkswagen scandal regarding faulty carbon emission tests and the ensuing resignation of the CEO suggests that executives are to some extent held responsible for misleading product strategies related to the impact on the environment. Therefore, I consider the characteristics of the board of directors including CEO duality, CSR committee, board gender diversity and independent directors as determinants of the CSR strategy (Mallin et al. 2013; Shaukat et al., 2016). In this chapter, I extend the growing literature in this field by considering the UNGC/GRI as the strategy for disclosure of corporate social performance.

The key questions of this study are: a) what are the characteristics of the directorates of the US-based firm members of the UNGC/GRI and b) are the levels of environmental and social performance a driver for the adoption of the initiative? In order to answer these questions, I use structural equation modelling (SEM). The sample comprises all the firms in the ASSET4 database with headquarters in the USA for the period 2002-2013.

Findings show that board of directors characterized by a stakeholder approach tend to support environmental and social performance, particularly where the CSR committee is strong. This is in line with resource dependence theory (Hillman and Dalziel, 2003; Pfeffer, 1972; Pfeffer and Salancik, 2003) and the resource-based view (Barney, 2001; Hart, 1995; Porter and Kramer, 2006), which in general suggest that these type of boards can enhance reputation and legitimize corporate social performance at the same time as creating a competitive advantage. My results also show that there is a greater impetus for the UNGC from social performance rather than from environmental performance. GRI results show similar patterns, however, coefficients are larger for this initiative.

This thesis contains five further chapters. Chapters 2, 3 and 4 are the empirical part of this work. Each chapter is self-contained, and therefore, has its own research questions, literature review, methods, results, discussion and conclusions. Figure 1.1 shows the research questions of the thesis. Finally, Chapter 5 provides an overall conclusion.

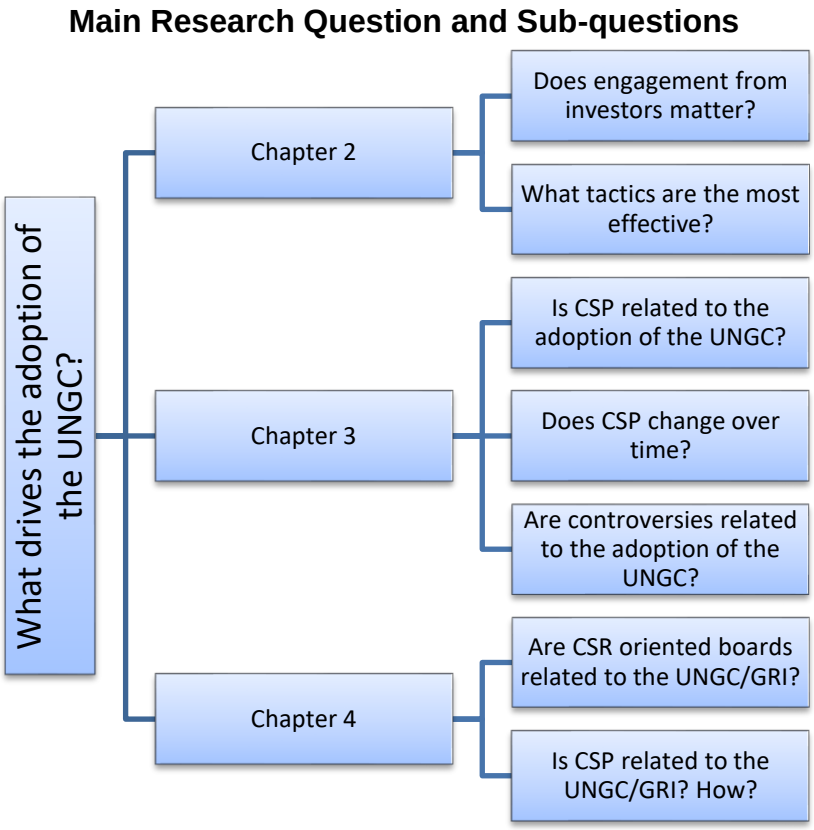


Figure 1.1. This figure shows my main research question of the thesis and the set of sub-questions for each empirical chapter.

CHAPTER 2

How to Engage Corporates Effectively? Evidence from a Field Experiment of the United Nations[23]

Abstract

This paper provides evidence from a large field experiment on shareholder engagement effectiveness, more broadly, and on the most effective tactics to engage with international publicly traded firms, more specifically. Shareholder engagement is a growing practice among investors who believe long-term profitability is related to corporate social responsibility. The so-called responsible investors use their ownership power to promote environmental, social and corporate governance practices, programmes and policies among the different departments and activities of their firms. The experiment is designed to test the effectiveness of shareholder engagement and nine different tactics. It consists of an invitation letter sent by the Principles for Responsible Investment Clearinghouse, on behalf of a group of

[2] I am very grateful to the PRI and UNGC, particularly to Danielle Chesebrough, Ailee Katz, Atur Tetty Lubis, Valeria Piani, Shubhra Singhal, Olivia Watson, and Felicitas Weber. I am also thankful to Kais Bouslah, Quian-Li Jan, Ja Kim, Arleta Majoch, Marcus Nilsson, Clemence Rannou, Tatiana Rodionova, Rupini Rajagopelan, Ben Sila, Alexander Stanley, Mo Yan, Pei-Shan Yu and Tiffany Leung.

[3] Previous versions of this paper have been presented at the British Accounting and Finance Doctoral Colloquium at University of Newcastle, April 2013; PhD Day at University of Edinburgh, May 2013; Scottish Doctoral Colloquium in Accounting and Finance at University of Dundee, May 2013; ESG Finance Lab at University of St Andrews, June 2013.

investors representing US$3.3 trillion in assets under management, to encourage target companies to sign up to the United Nations Global Compact. The invitation letter employed in the experiment is a form of 'soft engagement'. I draw from Institutional Theory and Stakeholder Approach, to understand which tactics are more effective. Firms are distributed across control and treatment groups according to their prior probability of joining the United Nations initiative. The experiment shows the importance of contacting CEOs and chairpersons from target companies as a means to start dialogue; however, the arguments used by stakeholders should show 'a business case' in order to catch the attention of the management and result in successful engagement. A model for investor salience is used in order to understand the impact of the engagement, and social movement theory to analyse the way firms respond to the engagement. To the best of my knowledge, this is one of the largest randomized controlled trials in the shareholder academic literature and in practice. The outcome of this study is of relevance for shareholders and investor coalitions, policy makers, and other groups of stakeholders. As a result, this paper adds to the literature on shareholder engagement, public relations, marketing, accounting and strategy.

Keywords: corporate social responsibility (CSR); Principles for Responsible Investment (PRI); United Nations Global Compact (UNGC); shareholder engagement; field experiment; environmental, social and corporate governance (ESG).

2.1. INTRODUCTION

In recent years, investors have used their ownership power not only to influence corporate governance and financial performance but also to enhance corporate social and environmental responsibilities (Clark and Hebb, 2004; Sjöström, 2008). Corporate scandals, such as the bankruptcy of Enron and more recently the Volkswagen emission scandal, have put in the spotlight the need of more rigorous codes of conduct, plans and programmes with their appropriate measurement of outcomes that contribute to ethical and responsible business towards their shareholders, consumers, society and environment. Investors who participate as activists have the belief that the adoption of a corporate social responsibility approach will improve corporate financial performance in the long term (PRI, 2013). This philosophy has prompted investor coalitions to speak-up and make pressure on the companies they invest in. There are different forms of shareholder activism, for example, participation in the annual general meeting of companies, divestment, and letter writing (Sjöström, 2008). Most of the literature in the field has focused on the impact of resolutions and annual meetings (Clark, Salo and Hebb, 2008; David, Bloom and Hillman, 2007; Gillan and Starks, 2007; Ertimur, Ferri and Volkan, 2011), on the drivers for shareholders salience (Gond and Piani, 2012; Hamilton and Eriksson, 2011; Vandekerckhove, Leys, and Braeckel, 2007), dialogue with target companies (Ferrero and Beunza, 2014), impact of engagement (Becht et al., 2009), and also, on management attitude towards engagement (Becht et al., 2009; Vandekerckhove et al., 2007). However, the effectiveness of the tactics employed in the process of engagement remains unexplored.

My research aims to explore this gap. To be more specific, this paper empirically and theoretically analyses the effectiveness of ‘soft engagement’ and of a

number of tactics used in engagement letters. The letters were sent by the Principles for Responsible Investment (PRI) Clearinghouse on behalf of a group of investors, representing US$3.3 trillion in assets under management (AUM), to international publicly traded firms to invite them to join the United Nations Global Compact (UNGC) initiative. As such, my research is based on field experiments comprising a sample of firms listed on the FTSE All-World index[4], which are not members of the initiative (laggards).

The UNGC is one of the largest initiatives promoting responsible business through the adoption of Ten Principles covering human rights, labour, environmental issues and anti-corruption practices. The initiative includes 8,000 business and 4,000 non-business participants coming from 170 countries (UNGC, 2015b). The process to join the initiative is straightforward: the CEO of the firm sends a letter to the UNGC Secretary stating that they accept to implement the principles within their operations and policies. Thereafter, UNGC members submit an annual report called 'Communication on Progress' (COP) where companies disseminate the actions that they have taken and the outcomes of such actions; these reports are publicly available[5]. The benefits of joining the initiative include access to the UNGC network, partnerships, and support from local networks (UNGC, 2016a). In addition to the economic and reputational gains highlighted in the literature (Arevalo, Aravind, Ayuso, and Roca, 2013; Cetindamar and Husoy, 2007).

[4] '*The FTSE All-World Index is a market-capitalisation weighted index representing the performance of the large and mid-cap stocks from the FTSE Global Equity Index Series and covers 90-95% of the investable market capitalisation. The index covers Developed and Emerging markets and is suitable as the basis for investment products, such as funds, derivatives and exchange-traded funds'* (FTSE Russell, 2016).

[5] The initiative has been criticized by NGOs, activist and academic researchers by the lack of monitoring of the COPs, the UNGC has established different levels of reporting (learner, active and advance) to distinguish among the commitment of its members (UNGC, 2015)

The invitation letter used in the experiment can be considered as 'soft engagement'. Lewis and Mackenzie (2000) distinguish between two types of engagement: 'passive marketing signalling' and 'active engagement'. The former involves sending signals through the financial market by investing in companies that have good environmental, social and ethical performance. Passive marketing signalling has been developed mainly by ethical funds in the UK but results are questionable in terms of impact. On the other hand, active engagement is the preferred strategy in the US and seems to be more fruitful. In the US, shareholders' demands are usually submitted to be considered in the Annual General Meeting (AGM). Many of the demands are discussed before the AGMs, and if agreement is reached shareholders withdraw the proposal. According to Lewis and Mackenzie (2000) 'soft engagement' is an hybrid of the 'passive marketing signalling' and 'active engagement' and involves not only contacting and persuading particular firms (e.g. letters, meetings and surveys) but also participating in more broad events and practices such as conferences and initiatives to promote ethical behaviour.

The success of engagement depends to some extend on how shareholders are perceived by the management of target companies, and also on the significance of the demanded issue. I base the first set of tactics on the proposal made by Gifford (2010) to determine shareholder salience. He considers the three attributes identified by Mitchell et al. (1997) as relevant for stakeholders in general. Those attributes are: power, legitimacy and urgency. Within each attribute Gifford (2010) proposes a subcategory of relevant items in the context of shareholders. For power, he suggests coercive, utilitarian and normative characteristics of shareholders. For the legitimacy attribute, he identifies four subcategories namely individual, organisational, pragmatic and societal, and their corresponding source. Finally, Gifford (2010) highlights that

the urgency attribute can be built in two type of arguments: time-sensitivity and criticality of the request.

The second set of tactics refers to other tools that might be helpful in the engagement process. These tactics are related to elements embedded in the invitation letter itself such as language; environmental, social and corporate governance (ESG) statement; and channels of communication. In terms of language, I measure the difference between sending a letter in English rather than in the local language of the target company. Regarding the ESG statements, I consider if quoting some of the firm's own achievements on environmental, social and corporate governance issues make a difference. Channels of communication refers to testing the effectiveness of sending the invitation letter by email or by post.

Because the firms included in the experiment are based in different countries, it is necessary to include a theory that can help us to understand the reaction of managers by not only considering the attributes of shareholders but also the institutional field of targeted firms. Social Movement Theory explains the influence that a group of activist can exert over firms and the respond in terms of its organizational field.

The field experiment was based on a nested design which allows researchers to analyse the individual effect of each independent variable as well as the combined effect of all the independent variables together on the dependent variable. This is one of the largest experiments in academic research to date, in terms of the tactics tested and the number of experimental groups. However, the small number of responses obtained do not allow me to analyse the interactions of the independent variables but only their individual effect (main effects). I test nine different tactics selected by the investors based on their own experience. All the tactics were combined with each

other creating 64 treatment groups plus a control group. Target firms were randomly distributed within all the groups.

Overall, my results show that the business case for this particular engagement is non-existent. Gifford (2010) specifies that the business case is crucial for the salience of shareholders. Likewise, my results show that contacting the chair in addition to the CSR department and following up the engagement with target companies are the most effective tactics. It is also somewhat helpful to contact the CEO and referencing peers' companies that have adopted the initiative. These findings are in line with previous research where the preferences of management are basic for successful engagement (Becht et al., 2009; Gifford, 2010; Hamilton and Eriksson, 2011). I also find that the engagement process is stronger when firms have a high ex-ante likelihood to sign up the initiative and are located in countries where the concern about environmental, social and governance issues is also predominant (e.g. Australia, Sweden). Understanding the effectiveness of engagement tactics is not only important for shareholders and coalition of investors who use 'soft engagement' to enhance sustainable practices in target companies but also for a number of stakeholders as policy makers, NGOs and other activist. This paper also adds to the literature on public relations, marketing, accounting and strategy.

Finally, the paper is organized as follows. The next section provides an overview of the literature on the UNGC and on Shareholder Engagement. The third section presents the Theoretical Framework. Then, I present the development of the hypotheses. Next section, describes the data used, the selection of sample and the methods for analysis. The results are presented in the sixth section. Then, I discuss the findings and limitations and suggests areas for future research. The paper closes with the conclusions.

2.2. BACKGROUND

This section has three main parts. In the first one, I briefly portray the UNGC current situation and existent academic literature, and provide a number of general reasons to join CSR voluntary initiatives. Then, I depict the shareholder movement: I present some definitions and other key words, and previous work on this area. With this on mind, we will be introduced to the last subsection where I discuss the theoretical framework used to answer the research questions of this paper.

2.2.1. The United Nations Global Compact

The UNGC is a multidimensional initiative that encourages entities to implement Ten Principles covering the areas of human rights, labour, environment and anti-corruption within their normal practices and operations (Table 2.1). The initiative was launched in July, 2000 and is regarded as one of the most important and largest memberships promoting sustainable practices (Chen and Bouvain, 2009; Kell and Ruggie, 1999; Perkins and Neumayer, 2010; Gilbert, Rasche and Waddock, 2011). Currently, the initiative accounts for over 9,500 business firms classified as small and medium enterprises as well as large multinational firms in a wide variety of industries; and more than 3,000 non-business organizations (NGOs, academia, and public sector among others) in 160 countries and with about 85 local networks. The UNGC excludes a few companies: those enterprises with less than 10 workers (under revision from 01/08/2018), those in unethical sectors (i.e. tobacco and controversial bombs), and those banned by the United Nations (UNGC, 2015b). Business participants are committed to submit a yearly report, called 'Communication on Progress' (COP), about their activities on the accomplishment of the Ten Principles. Members that failed to disclose such information are classified as non-communicating participants

and, if the omission is not amended, companies are delisted from the initiative (UNGC, 2014).

TABLE 2.1

UNGC: The Ten Principles

Human Rights
Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights.
Principle 2: Make sure that they are not complicit in human rights abuses.
Labour
Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
Principle 4: The elimination of all forms of forced and compulsory labour.
Principle 5: The effective abolition of child labour.
Principle 6: The elimination of discrimination in respect of employment and occupation.
Environment
Principle 7: Businesses should support a precautionary approach to environmental challenges.
Principle 8: Undertake initiatives to promote greater environmental responsibility.
Principle 9: Encourage the development and diffusion of environmentally friendly technologies.
Anti-Corruption
Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

Notes: Adapted from *The Ten Principles of the UN Global Compact* (UNGC, 2016c). Retrieved from https://www.unglobalcompact.org/what-is-gc/mission/principles.

A number of scholars describe the UNGC as a way to "bluewash" companies' image. Banerjee (2007, p. 99) suggests that the *"Global Compact is a form of 'bluewashing' where corporations wrap their credentials in the blue UN flag to escape scrutiny of their actions at the global level"*. For instance, Bennie et al. (2007) find that the industry of oil and gas are more willing to participate in the UNGC as they can be the target of human rights defences. Similar arguments are raised by

Hamann et al. (2009) who give special attention to human rights within the extractive industry in South Africa. More recently, in a study about economic crisis and the Global Compact in the US, Arevalo and Aravind (2010) argue that there are firms that adopt the ten principles but do not really commit to them, even less in times of crisis. On the other hand, Janney et al. (2009) claim the Global Compact membership is not a fact of bluewashing a company's reputation but making it stronger. In accordance to this statement, Bernhagen and Mitchell (2010:1185) conclude that *"firms recognize that their commitments to human rights, environmental standards, and good governance have to be credible"*. Recently, the UNGC has implemented two mechanisms to empower itself and improve its legitimacy: a) an annual contribution according to the size of the firm (applicable only for business) and b) a new model to evaluate practices reported in the COP (UNGC, 2014).

In more general terms, other research has explored why firms decide to engage with CSR practices. Jo and Harjoto (2011) distinguish two main reasons, the first one is that CEOs might create a good reputation as responsible citizens, thus, granting them benefits not only inside but outside the firm; however, the cost of that image is borne by the shareholders. The second reason is related to the stakeholder theory; where the conflict-resolution hypothesis is taken into account and, this inspires the engagement with CSR standards, which in turn is positively related to corporate governance.

Some scholars, however, argue that engagement with voluntary initiatives has some drawbacks. In an early study, McLaren (2004) argues that voluntary CSR initiatives might discourage companies from adopting them due to the cost of market competition and the lack of a strong framework to disclose information that allows stakeholders to evaluate the company's practices and therefore, to obtain a

competitive advantage. A recent study carried out by Ioannou and Serafeim (2012) finds that competition at the nation-level is reflected in lower corporate social performance (CSP). Campbell (2007) points out that not only competition but also a contracting economy impact on CSP, although not to the same extent. Therefore, companies might opt for neglecting CSR initiatives if they judge that the potential benefits of implementation do not exceed their costs.

2.2.2. Shareholder Engagement

This relatively new philosophy of Shareholder Engagement started in the second half of the 20th Century. Although the origin is not clear, researchers have found evidence of this practice by the end of the 40´s in the UK, in the decade of 1960 in Sweden and late in the 70´s in the US (Bengtsson, 2007; Vogel, 1983). A fact that is common across studies is that social responsible investment was primary carried out by Churches from different denominations, and therefore influenced by religious criteria such as excluding producers of alcohol, tobacco and weapons (Bengtsson, 2008). This practice was then spread among other type of investors who demanded changes not only with the purpose of firms becoming ethical but also more profitable (Bengtsson, 2008).

As a consequence of the above historical events, there have been several attempts to define shareholder engagement; however, there is no formal concept. Hamilton and Eriksson (2011) identify two concepts that are closely related in this field: shareholder activism and shareholder engagement. The former refers to the actions taken by investors to induce a change regarding any aspect of corporate governance, while the latter is the denomination for investor inquiries not only related to corporate governance but also to social and environmental issues; however,

currently both terms can be interchangeable. Gillan and Starks (2007) refer to it as the use of shareholders "voice" in order to induce a change without the intention of taking control of the firm. Another definition is taken from Sjöström (2008, p. 142): "shareholder activism is defined as the use of ownership position to actively influence company policy and practice". From these definitions, it can be concluded that shareholder engagement refers only to those with a current stake within the company. However, Gillan and Starks (2007) suggest that shareholder activism can be visualised in a continuum from simple trading up to takeovers with intermediate points; in this continuum, we can include the coalition of investors with power to trade target companies' stakes. Table 2.2 shows a summary of the different concepts related to shareholder engagement.

As mentioned above, shareholder engagement might pursue two objectives: a change in economic aims (Denes, et al., 2017; Holland 1995, 1998a, 1998b, 2001) or a change in environmental and social behaviour (Becht et al. 2009; Gifford, 2010). These objectives are not exclusive and an effort has been made to present a ´business case´ for this practice particularly showing that in order to serve the maxima stated by Friedman (1970) about maximizing shareholders wealth social, environmental y corporate governance issues should be attended. However, evidence still is mixed showing that CSR does not affect financial performance (Barnea and Rubin, 2010; Dam and Scholtens, 2012) and that CSR and financial performance are positively related (Orlitzky et al 2003).

Table 2.2
Shareholder Engagement Related Elements

Concept	Items Related	Reference
Stakeholders	Institutional Investors (e.g. pension funds, hedge funds, mutual funds) Non-governmental Organizations (NGOs) Unions Individuals	Becht et al. (2009) Clark and Crawford (2012) Gillan and Starks (2007) Hamilton and Eriksson (2011) Lewis and Mackenzie (2000) Sjöström (2008) Vandekerckhove et al. (2007)
Shareholder Activism Synonyms	Shareholder/investor activism Shareholder/investor engagement Shareholder advocacy Shareholder pressure Relationship Investing	
Engagement Tactics	Letter writing Meeting/Dialogue with the board of directors/ managers (e.g. CEO) Participation in Annual General Meeting (AGM) Campaigns (collision)	
Channels of Communication	Face to face Letters Phone Media	

Notes: This table shows different elements related to Stakeholder Engagement. The first section 'Stakeholders' lists a number of parties that act as activist. The next section shows a list of synonyms used in the academic literature to refer to Stakeholder Activism. Then, 'Engagement Tactics' presents a list of activities that stakeholders adopt in order to pursue target companies. Finally, the table shows the way through which target companies are contacted.

In order to present an overview of Shareholder Engagement, Sjöström (2008) conducts a comprehensive analysis of the existing literature on this field. She claims a growth in the number of publications from 1983 to 2007 and identifies five trends. First, she describes how studies in this period addressed shareholder proposals and their targets. The next category includes papers about the outcomes shown by

companies that have been targets of shareholder efforts. The third and fourth trends belong to NGOs and unions, respectively, which might be misrepresented in the literature. Although, according to Sjöström (2008) for NGOs, this might be due to their new enrolment in capital markets. However, unions are by default an important piece of social practices in corporations and the studies cited are mainly based in Australia. The last trend that the author covers is pension funds which she concludes might positively endorse CSR practices. The study highlights that letter writing is one of most recurrent artefacts for engagement. Denes, Karpoff and McWilliam (2017) present an updated review of shareholder engagement literature where they highlight the improvement of engagement over the years.

Engagement strategies typically involve one or more of the following activities: letter writing, private meetings with the board of directors, participation in Annual General Meetings (AGMs), campaigning, and collaboration with other activist. For instance, Becht et al. (2009) found that the Hermes UK Focus Fund (HUKFF) preferred strategies are to meet with the board of directors, to ask support from other investors and to launch press campaigns, and that some of the contact methods are via telephone, letter and face-to-face meetings. In addition, Becht et al. (2009) distinguish between three levels of attitudes of the target companies towards engagement: collaborative, mixed and confrontational. The former refers to the agreement among parties. A mixed attitude is considered when the company does not completely agree with the HUKFF request but still, they comply with it. The final attitude, confrontational, is when stronger actions need to be done in order to implement the change, for instance, the CEO (Becht et al., 2009). In a previous study, Holland (1998a) finds similar attitudes from being cooperative to breaking down the relationship between financial institutions and the management; however, as Thomson

and Bebbington (2005) highlight the involvement of dialogue is necessary to excel in the engagement. From these studies we can observe that the contribution from both sides of an engagement process is important (i.e. activist and target).

In the same vein, Lewis and Mackenzie (2000) consider that 'soft engagement', an hybrid of the 'passive marketing signalling' and 'active engagement', involves not only contacting and persuading particular firms (e.g. letters, meetings and surveys) but also participating in more broad events and practices such as conferences and initiatives. Levit (2014) studies 'soft shareholder activism' as an option for influencing companies on issues related to corporate governance when controlling the firm is impossible or impractical due to costs. More particularly, the author focuses on the relationship between communication and exit and how these actions are reflected in the stock price, CEO compensation structure and other investment characteristics. Both studies mention the use of different approaches to get in touch with the management but they do not focus on the tactics or elements used, nor test their particular effectiveness. Holland (1998b) finds that firms are willing to disclosure private information when they meet with investors in relation to financial issues. In addition, Solomon and Darby (2005) points out that the practice of private disclosure used in financial queries is also beneficial for social and environmental demands. Although Bourveau and Schoenfeld (2017) assert that a common practice across managers is to release information on earnings and sales forecasts when they feel they are at risk to be approached by activist.

While I have referred to Stakeholder Engagement from the perspective of shareholder to companies, engagement from companies to stakeholders is also plausible. Thomson and Bebbington (2005) denotes that the logic for this practice is to enhace the quality and strenght of Social and Environemal Reporting, although to

achieve this aim dialogue needs to be meaningful. In a more recent study, Barone, Ranamagar and Solomon (2013) suggest the introduction of guidelines on how to conduct successful engagment by companies is necessary even if it not a mandatory mechanism, the idea ,they say, is to assist on how to disclosure information in sensitive cases as it could be a takeover.

Furthermore, engagement processes can be considered as well as a learning curve for both activists and target firms. Holland (2011) proposes a 'systematic strategy for change concerning ESG issues in fund management´ (p. 169) which includes the identification of areas within the accountability chain (firms, fund managers, trustees, clients) based on knowledge and change. Reid and Toffel (2009) study the effect of shareholder activism and government politics in relation to organizational change, and find that shareholder activism does not only change corporate behaviour of target companies (direct effect) but also change the norms, beliefs and practices of the industry where the target is located (spillover effect). Sikavica, Perrault and Rehbein (2018) suggest that managers can learn to interpret who are the activist and what kind of objectives they persue, in this way, managers can easily disregard those proposals that are not in line with their own objectives (e.g. profitability). For instance, Walls and Berrone (2017) find that environmental expertise of CEOs on environmental issues confer them informal power within corporations improving their environmental impact.

In addition, investors can focus on target firms where they have opportunity to succeed or on target firms with entrenched managers that might difficult any possible change that might not be of his/her interest; it depends on activists' resources (e.g. time and money) (Benton and You, 2018). Cundill, Smart and Wilson (2018) conclude that target firms might respond in a substantive or symbolic manner depending on the

activist perceived salience. Bengtsson (2008) suggests that engagement from investors changes over time according to the institutional context where actors participate and at the same time the institutional context changes due to the pressures from investors demanding the implementations of certain practices. In this sense, according to Bengtsson (2008) the list of actors includes investors, governments, NGO´s, Pension Funds, Managers and providers of SRI services. In sum, the study of the environment where the engagement takes place is crucial for supersede.

Regarding pension funds, they have become more important in encouraging firms to get involved in CSR activities. For instance, the Teachers Insurance and Annuity Association of America and the College Retirement Equities Fund (TIAA-CREF), the largest pension fund in the US, established an engagement programme to encourage target companies to develop specific corporate governance practices. The results showed a positive impact (Carleton et al., 1998). More recently, a study about Swedish pension funds was carried out in order to determine the strategies that are used in this sector (Hamilton and Eriksson, 2011). The authors find out two channels: exclusion and engagement. The first refers to sell the shares owned in case the company has failed to comply with a CSR global agreement in which the Swedish Government is involved. The second strategy refers to engagement with companies that have failed in some aspects of CSR, but whose failures are not serious. In this case, the engagement comprises proposals and pressure from coalitions. In both types of engagement, underperforming companies are identified through portfolio screening and ratings provided by external agencies.

Target firms tend to comply in different ways. Drawing from the insights of corporate political strategy literature Clark and Crawford (2012) compare direct (shareholder resolutions) and indirect (request for environmental disclosure)

engagement. They find that companies showing poor and good performance prefer to engage with stakeholders by fulfilling their disclosure inquiries, whereas companies showing no strengths or concerns about environmetal issues and those with a similar number of strenghts and concerns tend to engage in environmetal policies by agreeing the withdrawl of resolutions and by communicating their practices. Eding and Scholtens (2017) study the relationship between type of investors, proposals in AGMs and firms. They find that Institutional Investors with the label of socially responsible tend to demand higher performance on environmental practices rather than in social practices. In terms of financial performance, Denes, Karpoff and McWilliam (2017) conclude from an analysis of 73 papers that poor and large performers are in the spotlight of activist particularly from Hedge Funds.

The engagement analysed in this paper is based on experimental designs which have been used before in this field. For example, Dyck et al. (2008) study the influence of media on corporate governance practices on Russia. The authors classified evidence from foreign and local press regarding violations to corporate governance structure into seven groups according to the kind of strategy used by shareholders to produce a change on the governance. Employing a clinical trial approach, Becht et al. (2009) explore the impact of private engagement by the HUKFF on the returns of target firms. The engagement consisted of a series of interventions in policies and procedures related to the governance and financial performance of the firms. Their results show that engagement does improve financial performance. These benefits are distributed among all shareholders, including those that did not participate in the engagement. Similarly, Mackenzie, Rees and Rodionova (2013) present a clear setting for a natural experiment: the intervention of the FTSE management in target companies and the threat to be excluded from the index if they do not comply with the environmental

requirements established by the index. Companies' allocation to the treatment or the control group depends on whether they were or were not listed in the FTSE4Good Index. The authors conclude that when the engagement comes from an international and well-regarded index, such as FTSE, and it is strengthened with the threat of being publicly delisted from the index, there are higher possibilities that the company will improve its environmental performance.

Furthermore, this growing phenomenon has also been studied according to its geographical application. Lewis and Mackenzie (2000) highlight the difference between shareholder engagement taking place in the US and in the UK. They argue that in the US, ethical funds invest in 'sin' companies with the purpose of influencing corporate behaviour, whereas in the UK the screening policies of the ethical funds forbid investment in this type of company. Therefore, engagement practices are also different between these two countries. In the US, shareholder activists tend to participate in AGMs by submitting proposals requesting the improvement on social, environmental but mainly, governance issues. Evidence shows that management pay attention to these requests, and if agreement is reached, the proposals are withdrawn before the AGM takes place. In the UK, shareholders invest in those companies with good performance, fact that sends signals to the financial market with the aim of inducing responsible behaviour ('passive marketing signalling'). Australia follows a similar pattern to the US by using negative screening and the rest of Europe also employ a best-in-class approach (Capelle-Blancard and Monjon, 2012). According to Hamilton and Eriksson (2011) engagement through dialogue is the preferred strategy of Swedish pension funds to influence corporate behaviour, although, they highlight that exclusion is also practiced when foreign shares are involved. In Japan, shareholder activism has recently started causing some confusion in target companies

which argue that questionnaires made by SRI are based on Western ethics; authors suggest the use of engagement and dialogue over screening (Solomon et al. 2004). A can be seen there are several differences within developed countries on how tactics used by investors and the responses that they can obtain from target companies.

In developing countries, although the literature is less developed there also exist differences on how investors approach corporations and how these corporations react. For instance in Nigeria, shareholder activism is considered a bullying practice with negative results which are influenced by the country's political environment (Adegbite, Amaeshi and Amao 2012). In a recent study Kim, Sung and Wei (2017) analyse the effect of investors' activism in emerging economies (i.e. Korea) showing that the type of investor (e.g. activist) and the country of origin, as a reference for the corporate governance practices, are determinants to enhance corporate governance performance. Overall, findings suggest that engagement should be designed according to the environment of the firm.

There is also evidence of how different types of ownership can have different outcomes on corporate social responsibility. According to Dam and Scholtens (2012), shares held by employees, individuals and corporations have a poor impact on CSR, whereas large investors' ownership (banks, state and institutional investors) remains neutral. As shareholders, institutional investors play an important role in corporate social responsibility. Institutional investors comprise insurance companies, mutual funds and pension funds among others and therefore they are considered as the largest investors in a number of countries (Dam and Scholtens, 2012). The authors argue that these differences can be the result of the role of each party within the society. They analyse separately three CSR dimensions: ethics, environment, and stakeholders finding that each group of shareholders might have especial interest in one or another

dimension within European firms. On a broader study, Rees and Rodionova (2013) employ a global sample to investigate how strategic shareholder ownership and closely held equity impact on different aspects of CSR, namely social, environmental and governance scores. Although these papers provide some useful insights for engagement (i.e. preference for CSR practices), they do not indicate whether shareholders employ any tactic to approach the management and hence influence corporate behaviour.

In general terms, the studies in the preceding paragraphs show the impact of engagement, target firms, type of activists and communication and dialogue between firm managers and activist. It was pointed out that characteristics of engagement such as CEOs and activists' preferences, organizational context of application and dialogue are critical for achieving the objective of engagement. Based on a field experiment, I test different tactics identified in the literature used by a large group of Institutional Investors to determine if engagement works. Furthermore, as the experiment targets firms from all over the globe, I am also able to test how companies react based on their countries. Therefore, the research questions of this study are: does engagement from Institutional Investors matter?, what are the most effective tactics to approach target firms? And does firms from different countries react differently to engagement?

2.3. THEORETICAL FRAMEWORK

Shareholder engagement has been widely studied through the lenses of agency theory due to its relationship with corporate governance in general, and managers in particular (Gillan and Starks, 2007). However, in order to respond to the actual demands of stakeholders it is impossible to think just about the self-interest of the management without considering internal and external pressures that come from the

institutional environment where the firm operates. Therefore, I ground the bases of this paper on Stakeholder Theory and Institutional Theory.

Stakeholder theory establishes that *'any group or individual who can affect or be affected by the decisions and the achievement of corporate objectives'* (Freeman, 1984:25) must received attention from the management. However, as organizations interact with multiple actors (e.g. goverments, suppliers and customers, local communities) it is not possible to engage with all them. Consequently, the management evaluates demands from stakeholders who are typically classified in primary and secondary groups according to the nature of their relationship. In this sense, Mitchell et al. (1997) propose a model for stakeholder salience which includes: power, legitimacy and urgency.

According to Mitchell et al. (1997) a stakeholder has power 'to the extent it has or can gain access to coercive, utilitarian, or normative means, to impose its will in the relationship' (1997, p. 865). Mitchell's et al. (1997) classification of power is based on Etzioni's (1964), cited in Gifford (2010, p. 80), work and applied by Gifford (2010) to deepen our understanding of shareholder salience. Gifford (2010) relates *coercive power* to the formal use of ownership, for instance, by submitting a proposal in the AGM; *utilitarian power* to the use of financial means to compensate corporate behaviour (e.g. investment/divestment); and, *normative power* to actions taken by the investors that can affect either the reputation of the company or its management. In the engagement that we are analysing the coercive and utilitarian powers are not very clear as the stake of the investors is unknown and it might be the case that not all the investors have a stake in the company; however, the normative power still can be used.

The second attribute to capture the attention of the management is legitimacy. Legitimacy is defined by Suchman as 'a generalized perception or assumption that the

actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions' (1995, p. 574). According to Gifford (2010) there are four levels to be considered: individual, organisational, societal and pragmatic. These levels result from the combination of Wood's (1991) and Suchman's (1995) categorization of legitimacy. *Individual legitimacy* refers to the 'credibility, expertise, experience and status of the individuals engaging with the company' (Gifford 2010, p. 81); in this case, it is the legitimacy of the PRI as a platform for shareholders to facilitate engagement processes and communication with target companies. *Organisational legitimacy* denotes the position and perception of the PRI itself in the market. *Societal legitimacy* comes from the significance of the issue for the society, in this case, the acceptance of the UNGC. Finally, *pragmatic legitimacy* refers to the business case of the issue requested, this is, how target companies might benefit from becoming members of the UNGC.

The engagement under review meets all these types of legitimacy: meetings, phone calls, emails and any sort of communication between the group of investors and target companies was addressed by the PRI Clearinghouse, the department in charge of all the engagement practices related to the PRI (individual legitimacy). Also, the PRI is a large highly regarded network of investors who include in their investment decisions and operations six principles related to responsible investment and encourage other parties to be more sustainable (organizational legitimacy). The request of this group of investors is based in adoption of the ten principles established by the UNGC, one of the largest voluntary CSR initiatives backed by the United Nations (societal legitimacy). Finally, joining is straightforward with no membership fees[6], companies can improve their environmental, social and corporate governance

[6] Membership fees were integrated after the experiment took place.

performance which in turn is highly appreciated by investors and other important stakeholders (pragmatic legitimacy).

The urgency of the claim made by stakeholders is third attribute for shareholder salience. According to Mitchell et al. (1997), for a claim to be considered urgent, it needs to be *time-sensitive* and *'important or critical to the stakeholder'* (1997:867). Gifford argues that the element of time-sensitivity is easy to identify whereas criticality 'reflects the subjective importance the investor places on the claim' (2010:82). In this case, the time-sensitive condition is met with the deadline established in the invitation letter (24 May 2013). However, in order to establish the criticality of an engagement, Gond and Piani (2012) point out that the issue of interest must be important for investors and for a broader public (for example, as a result of a trend) and emphasized by the arguments used in the negotiation. Therefore, we can visualize the critical aspects of this experiment in the justification given by the PRI in the invitation about the importance of joining the UNGC. In a review of literature made by Garanova and Ryan (2013), they conclude that urgent and legitimate demands coming from large and powerful investors are attended by managers.

On the other hand, Institutional Theory is used to understand how and why organizations behaviour is shaped in certain ways. For instance, DiMaggio and Powell (1983) suggest that actors exert influence in organizations through isomorphic processes which the authors define as coercive, mimetic and normative. Coercive isomorphism refers to pressure created by governments and the application of laws. Mimetic isomorphism is the imitation of successful practices carried out by similar organizations eluding the cost attached to finding the best way to achieve an objective. And finally, normative isomorphism is related to professionalization of the subject. Later, Scott (2001) strengths DiMaggio and Powell´s processes as pillars for

Institutional Theory. Up to here, Institutional Theory was meant to explain homogeneity across organizations.

In contrast, recent research on Corporate Social Responsibility and on Shareholder Engagement has claimed that cross-sectional variations arise from cross-nation level institutions. Ioannou and Serafeim (2012) carry out a large empirical study covering over 40 countries and a variety of industries and firms. They find that multi-level characteristics explain about 47% of their Corporate Social Performance. According to Scott (2008) field-level analysis helps to understand that 'organizations operates in systems composed of both similar and diverse forms' (p. 435). In this line Comyns (2018) studies climate change policies and multinational corporations and how the intensity in which subsidiaries adopt those policies changes according to the country where they are located. Reid and Toffel highlight that *'social movements theory offers a promising theoretical framework for understanding why firms might respond to these appeals´* referring precisely to engagement from activist such the PRI (2009, p.1158). They conclude that firms that have been targeted by activist in a particular issue will be more willing to engage with activists; they will react similarly if a peer from the same industry has been already contacted by activists. Reid and Toffel (2009) also find that political context influences the target response, this is, if legislation related to the activists demands are in place, then there are higher probabilities that this firm will engage with investors.

Further studies use social movement theory, a theory based on institutional change which establishes the link with Institutional Theory. Under these lenses scholars aim to explain why firms react to activist they way they do and taking in consideration the characteristics of their organizational field (Wooten and Hoffman, 2008). DiMaggio and Powell (1983) define organizational field as 'those

organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products' (1983, p. 149). Den Hond and Bakker (2007) take these premises and combine the influence of activists over the organizational level and the mechanisms to change it.

2.4. HYPOTHESIS DEVELOPMENT

The final part of this section presents the experimental setting. I introduce the PRI, the investors that participate in the experiment, and the treatments to be tested. Finally, I present the hypotheses, which are divided in two sets. The first set lists the hypotheses under the 'Shareholder Salience' model, and the second set refers to those hypotheses outside the model.

2.4.1. The Experimental Setting

This paper analyses a practice of 'soft engagement' led by a group of investors from the PRI initiative. The PRI is an international organization that groups asset owners, investment managers and providers of professional services with the purpose of incorporating six principles in their investment practices (Table 2.3). The PRI works in partnership with the UNGC and with the United Nations Environment Programme Finance Initiative (UNEP FI) and has about 1,400 signatories (PRI, 2015). The experiment consisted of an invitation letter to join the UNGC sent by the PRI Clearinghouse on behalf of a group of 34 investors (Table 2.4) to those companies listed in the FTSE All World index (AW) that were not members of the UNGC as of March, 2013. A subset of the sample was considered the control group, this is, firms within this group did not receive any invitation. The purpose of the experiment is to

test which tactics are most effective for engagement practices. In order to determine which tactics should be tested, the PRI carried out focus group meetings with investors and the PRI Clearinghouse's staff. The resulting tactics include: 1a) contacting the CSR department vs contacting the CSR department and the CEO; 1b) addressing the letter to the chair as well vs not contacting the chair; 2) referencing the peers of the company that were already members of the UNGC vs not referencing; 3) sending an invitation via email vs post; 4) mentioning the AUM of the group of investors leading the experiment vs not mentioning the AUM; 5) translating the invitation into local language vs sending invitations in English; 6) following up the engagement by email vs not following up; 7) referencing the target firm's own ESG performance vs not referencing it; and finally, 8) listing the name of the company on a press release or not listing it[7]. The measurement period was from April 1st 2013, the date when the letters and emails started to be sent, until December 16th 2013; this period was considered appropriate according with previous campaigns carried out by the PRI and UNGC. The deadline to answer the invitation was 24 May 2013.

[7] There were a number of limitations in the data gathering process, for instance: language, corporate culture, changes in the corporate culture (merger, split up, complex structure) and in the company's name and also, in a number of cases, the information available via the corporate website is limited. All these issues were amended in the best possible way without causing major changes in the original design (i.e. without decreasing the number of target firms).

TABLE 2.3

PRI: The Six Principles

Principle 1	We will incorporate ESG issues into investment analysis and decision-making processes
Principle 2	We will be active owners and incorporate ESG issues into our ownership policies and practices.
Principle 3	We will seek appropriate disclosure on ESG issues by the entities in which we invest.
Principle 4	We will promote acceptance and implementation of the Principles within the investment industry.
Principle 5	We will work together to enhance our effectiveness in implementing the Principles.
Principle 6	We will each report on our activities and progress towards implementing the Principles.

Notes: Adapted from *The Six Principles* (PRI, 2016a). Retrieved from https://www.unpri.org /about/the-six-principles.

TABLE 2.4

Investors Participating in the Experiment

ATP	Dexia Asset Management	Syntrus Achmea
AustralianSuper	Folketrygdfondet	Scottish Widows Investment Partnership
AXA Investment Managers	Hermes Equity Ownership Services Ltd	The Central Church Fund of Finland
BNP Paribas Investment Partners	Highclere International Investors LLP	The Church of England National Investing Bodies
Boston Common Asset Management, LLC	Legal & General Investment Management	Threadneedle Asset Management
CCLA	Mn Services N.V.	Trillium Asset Management, LLC
CalPERS	NILGOSC	Universities Superannuation Scheme
Calvert Investment Management	PGGM Investments	Vancity Investment Management
Christian Super	Robeco	Walden Asset Management
Comité syndical national de retraite Bâtirente	Santa Fe Portfolios	Pension and Health Benefits of The United Methodist Church
Core Capital Management, LLC	Sparinvest	
Cyrte Investments	Strathclyde Pension Fund	

Note: This table lists the names of the investors that participate in the experiment.

The objective of the letter sent by the PRI Clearinghouse was to raise awareness about the absence of the firm in the UNGC as a means of committing to social and environmental practices. There were 32 different templates which includes a standard letter with the characteristics described in the following lines. The first paragraph invited companies to become members of the initiative (objective). The second paragraph introduced the UNGC very briefly (what it is, membership size and coverage, and purpose). The next paragraph identified the aim of the group of investors in stimulating sustainable practices. The fourth paragraph showed why it is important for investors that companies adopt the initiative. In the following paragraph, investors showed concern about the company not being a member of the initiative and invited it again to fully embrace the initiative and provided a link to the UNGC website where more information about how to become a member was provided. The sixth paragraph asked companies about any reasons for deciding not to take part of the UNGC. Finally, the last paragraph stated a date to receive the company's response. The letter was signed by the representatives of the 34 institutional investors leading the engagement. Appendix 2.1 contains an example of a standard letter.

Figure 2.1 shows the dynamic of the engagement process. Institutional investors decide to participate in a coalition lead by the PRI Clearinghouse as part of their commitments to the six principles established by the PRI for responsible investment. These investors have AUM which might influence the decision of target companies. All the 32 templates were sent via two channels (email and post) to the CEO, the chair and CSR department; if the company did not have a CSR department, the invitation was sent to the Investor Relations (IR) Department. The contents of each template vary depending on the additional information randomly included/excluded: peers, language, and ESG sentences. On the other hand, a number of companies were

selected for a follow up and some other were named on the PRI website. Therefore, I pose the following hypotheses to answer the first question about engagement:

H1a. Companies that received an invitation letter from the PRI are more likely to join the UNGC than those that did not receive a letter.

H1b. Companies that replied are more likely to join the UNGC that those that did not reply.

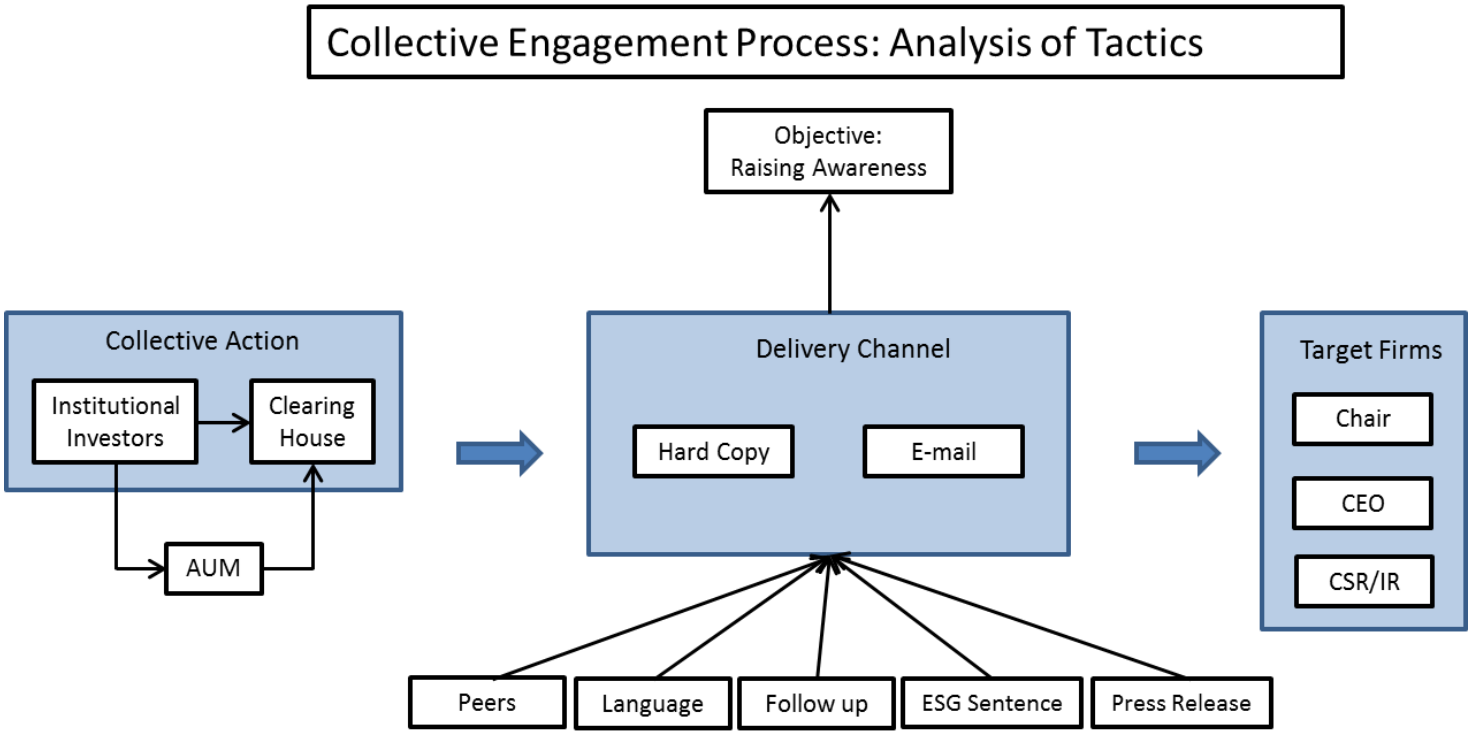


Figure 2.1. This figure shows how the different tactics interact in the engagement process. First, the letter is issued by the PRI Clearing House on behalf of the institutional investors and in some cases the AUM is indicated. Then, the invitation could be a hard-copy or an email, which objective is to raise awareness about non-being a member of the UNGC. This letter might contain different items (i.e. list three peer companies' members of the initiative). Finally, the invitation could be addressed to the chair, the CEO and/or the CSR department.

2.4.2. Testing Investor Salience

Once the different attributes for investor salience have been discussed in section 2.3., we can analyse the tactics employed in the experiment. The first two tactics are related to the contact point in the target firms. I test the impact of addressing the letter to the CEO and CSR department and to the CSR department only. Table 2.5 shows the recipient's position of the letter. In order to test the strength of this tactic, all the invitation letters were sent to the CSR department of each target company in the sample and half of the sample also received invitations for the CEO. Furthermore, a quarter of the companies in the sample received a letter for the chair. However, in some cases despite the company had submitted a sustainability report, it did not have a CSR department and the Investor Relations Department or other figure within the company was in charge of attending the social, environmental, ethic or governance queries. It is a common practice that the CEO is also the chairperson of the company, in such cases, only one letter was sent.

According to a number of studies, the management or the board are the contact points (Becht et al., 2009; Sjöström, 2008), although there are cases where the interaction involves other executives (Becht et al., 2009; Hamilton and Eriksson, 2011; Vandekerckhove et al., 2007). However, as the manager is ultimate person who signs the letter of agreement to be sent to the UNGC, and the responses to stakeholder's claims depend on how they are perceived by the managers, I propose the following hypotheses:

H2. Firms that received an invitation addressed to the CEO and the CSR/RI department are more likely to engage with investors than those that received a letter addressed to the CSR/RI department only.

H3. Firms that received an invitation addressed including the chair are more likely to engage with investors than those that do not include the chair.

TABLE 2.5
Recipient of the invitation

CSR Department	Chief Executive Officer (CEO)	Chairperson
Investor Relations (IR)	President	Independent Chair
Strategy Department	Company/Corporate Secretary	Representative Director
Compliance Officer	CEO, President and Director	Non-executive Chair
Media/Public Relations	Executive Director	Vice-Chair
Chief Financial Officer	Managing Director	President Commissioner
Corporate Planning and Business Development	General Manager	Chair of the Supervisory Board
Environment, Safety and Quality Assurance Committee	Chair of the Management Board	Chair of the board of Directors
Corporate Managing Division		
Corporate Affair Manager		
Investor Grievances Committee		
Corporate Secretary		
Chief Accountant		

Note: variations for the recipient of the invitation.

The third tactic included in the experiment is the AUM of the group of investors from the PRI participating in the engagement which are equivalent to $3.3 trillion dollars coming from renowned investors. It is suggested that coalitions increase the coercive and utilitarian power of shareholders (Gifford, 2010; Gond and Piani, 2012). However, as stated earlier, the figures of ownership to claim coercive power are not clear in this experiment. Utilitarian power makes more sense as the request comes from a large group of investors. It could be possible that shareholders

avoid investing in a firm if it does not comply with the request. Nonetheless, it would be more crucial if investors could divest, which again is difficult to assess in this case. Legitimacy is another attribute that can be observed in this tactic and can be visualized in all the four level or sub-classifications. As a result, the following hypothesis is established:

H4. Firms that received an invitation where the AUM of the group of investors is stated are more likely to engage with investors.

Another common activity among active stakeholders is press campaigns (Becht et al., 2009; Hamilton and Eriksson, 2011). In this sense, Levit (2014) mentions that public campaign (e.g. lawyers, submitting a proxy and advertisement) is more effective than private communication with management if there is an impact on the market. This type of campaign can be considered as a threat to reputation (Gifford, 2010). Because the list of firms is published on the PRI website, all the PRI membership has access to it, and therefore, other investors might also consider this information in their screening process (normative power). Based on these arguments I expect the following:

H5. Those companies listed by the PRI in the press are more likely to communicate with investors.

The next tactic to be tested is peer effect. Peer effect is related to the societal legitimacy attribute which gives the sense that a practice, code or activity is widespread and generally accepted in society and therefore, it becomes 'the rule'. For

instance Pérez-Batres et al. (2010) study Latin American firms listed in the NYSE finding a positive relationship between them and the affiliation to the UNGC and/or to the Global Reporting Initiative (GRI). It was agreed with the focus group of investors that including three companies that were already members of the UNGC would suffice to test this tactic. Two of the peers were the largest global companies in the same sector listed in the FTSE All World Index; size was measured according to the total assets of each company provided by Datastream. The third peer was a local company in the same sector. However, when it was searched, it turned out that in some cases:

a) The local company was the same than one of the global companies; to solve this issue the third largest company in the same sector was chosen.
b) The country did not have a company in that sector. When a peer was not available for a target company in specific at the sector level, the one at the industry level and country was considered, except for Hong Kong, where we looked first at Chinese companies.
c) In few cases (three), we only have one global company for the same sector; then, the second largest company in the same industry was considered.
d) When the country did not have companies in the same sector and industry, the largest company in the same country was selected.
e) In the particular cases of Ireland (1), New Zealand (3), Peru (1) Philippines (4) and UAE (5) where there were not peers members of the UNGC at all, the third largest global company for the same sector was selected.

As a result, the hypothesis for this tactic is:

H6. Firms that received an invitation where the peers are mentioned are more likely to engage than those that received an invitation without mentioning the peers.

The sixth tactic included in the experiment is 'follow up' target companies. Basically, this consists of sending reminders through email to some of the target companies. Following up on target companies is linked to the urgency attribute where investors show the criticality of the issues they are negotiating; target companies and campaigners interact constantly in different ways such as phone calls, informal meetings, and e-mails (Becht et al., 2009; Hamilton and Eriksson, 2011; Sjöström, 2008). Therefore, I hypothesize that:

H7. Those firms that were subject of a follow up are more likely to communicate with investors than those that did not receive follow up.

2.4.3. Other Helpful Tactics

The tactics explained in this section were selected by investors in a focus group. The coalition of investors engages with companies around the world; target firms are large and publicly listed, therefore investors would expect that the management speak English. However, they are aware of the benefits of speaking the same language and immersing in the culture of the target company; this could increase the legitimacy of their claims as it enhances trust. Academic literature in the field of marketing and public relations has considered this comparison, namely English versus local

language, but results are contrasting (Louhiala-Salminen and Kankaanranta, 2012; Schachaf, 2008). Louhiala-Salminen and Kankaanranta (2012) explore the use of English in international internal communication. The authors find that although the use of English benefits internal communication in multinational corporations, it does also show some concerns due to the different levels of proficiency in the use of the language, this is, non-native English speakers feel more comfortable when communicating in English with other non-native English speakers as they could use 'simple English'. Otherwise, when speaking with natives of English, they feel they are being manipulated. Shachaf (2008) investigates the effectiveness of cultural diversity and the use of information and communication technology (ICT) on international virtual teams. Shachaf (2008) finds that cultural diversity have a negative impact on communication, for instance *'German and Japanese participants reported that English language style was more personal than their own language. They felt that when they communicated in English they could not maintain the social structure that was exhibited in their own language. Their inability to maintain the social structure was frustrating'.* (p. 134) More important, the author finds that ICT improves communication when compared with face-to-face meetings. Therefore following the arguments about the use of English, the hypothesis for this tactic is:

> *H8. Those companies that received an invitation in English have the same probability to respond than those that received an invitation in the local language.*

The next tactic involves creating empathy with target companies by quoting one or two lines from their publicly available ESG information. Mattila and Hanks (2012)

find that empathy of consumers with a social cause is an important driver for donations. They emphasize that empathy is closely related to a social behaviour regarding disposition and emotions; in other words, if the cause is relevant and/or in proximity to them. This is in line with societal legitimacy and to reinforce the criticality of the argument, suggesting that firms are aware of the importance of undertaking ESG practices. Therefore, the next hypothesis is:

H9. Those firms that received an invitation with an ESG statement are more likely to communicate with investors.

Research into communication channels evaluated advantages and disadvantages of email and mail (Danaher and Rossiter, 2011; Kaplowitz, Hadlock and Levine, 2004; Shachaf, 2008; Westmyer, DiCioccio and Rubin, 1998). There is also a large literature about the effectiveness of surveys send by other different means. These include fax, telephone and in hand delivery (Cobanoglu, Warde and Moreo, 2001). However, there is no clear evidence as to which, post or email, is more effective. For instance, Danaher and Rossiter (2011) compared a number of communication channels to test their effectiveness in terms of intrusiveness, reliability, trustworthiness and opportuneness. Their results show that despite the growing acceptance of e-mail, marketing works better when traditional channels as mail are used. On the other hand, Cobanoglu et al. (2001) find that email has substantial advantages over mail. Responses received by mail took longer than those received by email, and the response rate was higher for email (44.21%) than for mail (26.27%). Surveys send by email are also cheaper than those by mail (i.e. printing and mailing costs). The last hypothesis is stated as follows:

H10.There is no significant difference in the probability to engage with investors between firms that received the invitation letter by email and firms that received the invitation by post.

Figure 2.2 shows the integration of the different hypotheses in the experiment.

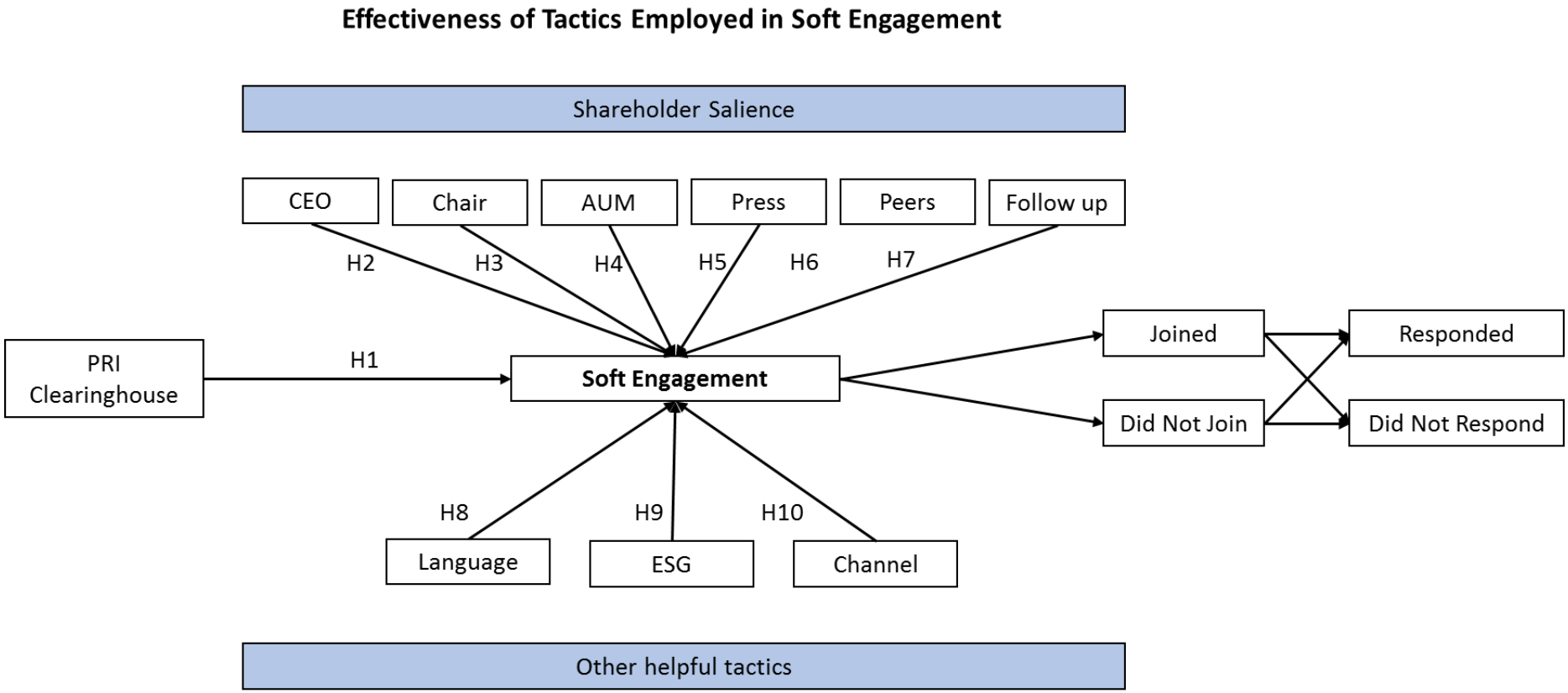


Figure 2.2. This figure shows the different tactics used in the experiment and their possible responses. The first hypothesis test if engagement matters, while hypotheses H2-H7 are directly related to shareholder salience, and hypotheses H8-H10 refers to other useful tools or tactics could improve investor salience. Finally, the possible outcomes of the engagement are portrayed.

2.5. RESEARCH DESIGN

2.5.1. Field Experiment

Field experiments can be thought of as a combination of laboratory and natural experiments. Field experiments use randomization in a natural environment; although they are criticized by the diminution of the control over the variables, they allow insights from the real world. The experiment developed in this paper, fits within what Harrison and List (2004) categorise as 'Natural Field Experiment' where participants do not know they are taking part of an experiment, they are in their natural environment, and therefore, they behave as they would do in any other similar situation[8]. The use of field experiments is common in different areas of research: economics (List and Lucking-Reiley, 2002); evaluation (Kiernan, Kiernan, Oyler and Gilles; 2005); leadership (Dvir, Eden, Avolio and Shamir, 2002; Martin and Liao, 2013); organizational behaviour (McNatt and Judge, 2004; Stajkovic and Luthans, 2001); policy (Di Stefano, King and Verona, 2015; Nutt, 1976); and, politics (Gerber and Green, 2000; Miller and Krosnick, 2004. Despite the vast literature on field experiments, the number of natural field experiments in the literature is limited, perhaps because of the infrequent occurrence of necessary conditions. List and Lucking-Reiley (2002) carry out an experiment to fund-raise money for the Center for Environmental Policy Analysis (CEPA) within the University of Central Florida; they test "seed money" and "refund policy" approaches. Based on professional opinion, the authors planned rules to maximize the overall contributions. Basically what they did was to split the sample of 3,000 donors into six different groups, three with the following levels to test seed money: 10 percent, 33 percent, and 67 percent of the

[8] For more information about social, natural and field experiments and its classification, please refer to Harrison and List (2004).

target, and another three with the same percentages but with the condition that if the target is not met, then they will receive their money back. The authors approached the donors with a letter describing the above information; the letter was substantially the same, except for the different percentages and rules about donations.

The experiment contained in this chapter qualifies as a field experiment. I had the opportunity to participate in a real engagement project, and to analyse how target companies behave in normal conditions.

2.5.2. Model Specification

In order to test the first hypothesis related to the impact of engagement by the group of investors (H1a), I use a simple logistic regression model where *Joined* is a dichotomous variable for all the companies that became members of the UNGC. The independent variable is also a dummy variable with the value of one if a company was subject of *Engagement* and if it was part of the control group.

$$Joined_i = \beta_0 + \beta_1 Engagement_i + e_i$$

The next equation models the probability of a company joining the UNGC when it replies to the PRI's invitation (H1b). Therefore, *Joined* is a dummy variable for all the companies that received an invitation indicating one if the company joined the UNGC and zero otherwise. The independent variable *Replied* is a dummy variable indicating one if the company communicate with the PRI and zero otherwise. What this model tells us is the effect of companies that got in touch with the PRI regardless of the purpose of the communication (i.e. requesting additional information, informing

the negative decision about adopting the UNGC or requesting additional time to decide).

$$Joined_i = \beta_0 + \beta_1 Replied_i + e_i$$

The third equation models the probability of a company to engage with the PRI as a result of receiving a letter with any of the nine tactics to be tested (H2-H10). The sample is split in three different groups according to their prior probability to sign the UNGC (low, medium and high). Each of the tactics is represented in the model below as a zero-one variable. In the case of the *CEO*, zero means addressing a letter just to the CSR department and one means the letter was sent to the CEO as well. One in the variable *Language* means that the letter was sent in the local language, this is, in the language where the company is based, and zero means that the letter was in English. Regarding the variable *Channel*, it is zero if the letter was sent by email and one if it was sent by post. The remaining tactics are represented with a one if the tactic was applied, and zero otherwise. The equations is as follows:

$$Engagement_i = \beta_0 + \beta_1 CEO_i + \beta_2 Chair_i + \beta_3 AUM_i + \beta_4 Press_i + \beta_5 Peers_i + \beta_6 Language_i + \beta_7 ESG_i + \beta_8 Channel_i + \beta_9 Followup_i + \beta_{10} Control_i + e_i$$

Treatments and the approximated number of subjects per treatment are shown in Table 2.6.; figure 2.3 shows the diagram of the treatment distribution.

Table 2.6

Treatments and Units per Treatment

Treatments	Observational Units	Experimental Units
A1 Contact CSR/IR Department and CEO	960	32
A2 Contact CSR/IR Department only	960	32
B1 Include a reference to their peers	960	32
B2 No include reference	960	32
C1 Invitation sent by post	960	32
C2 Invitation sent by email	960	32
D1 Indication of the AUM of participant investors	960	32
D2 No indication of the AUM	960	32
E1 Translate the letters into local language	960	32
E2 Letter sent in English	960	32
F1 Have UNGC/PRI Secretariat follow-up with a phone call or email to the company	240	8
F2 Customize letter with 1-3 sentences with ESG performance.	240	8
F3 Issuing a press release naming some of the companies	240	8
F4 Contact the Chair	240	8
F5 No treatment	960	32

Note: This table shows the number of observational units and number the experimental units per treatment.

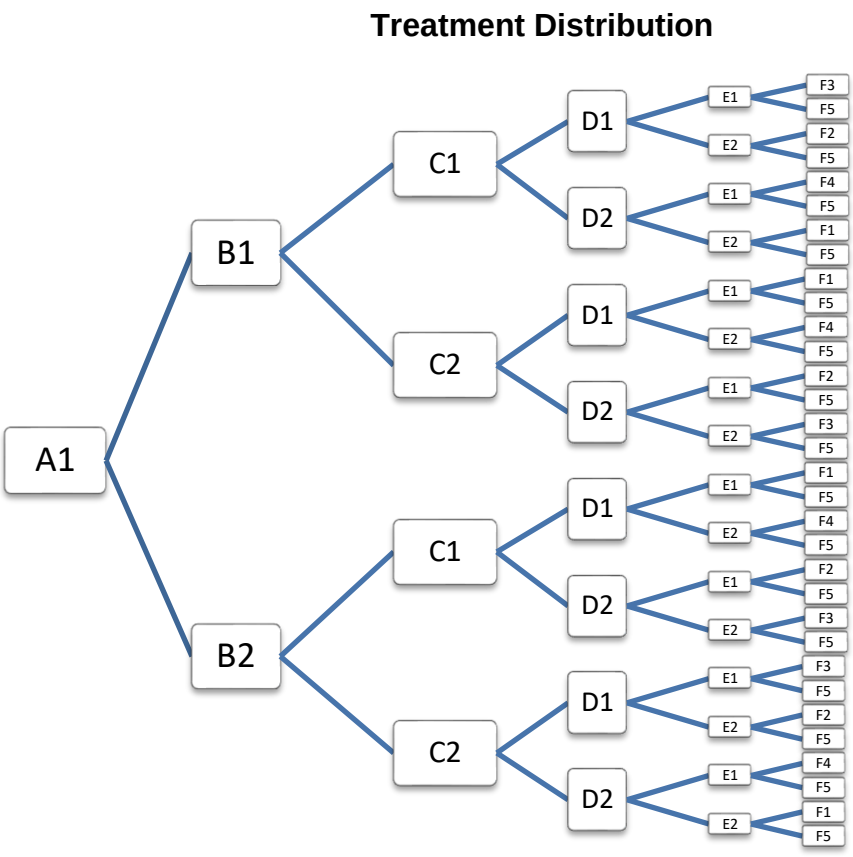


Figure 2.3. This figure shows half of the combination of the nine different tactics. This is, A1 represents contacting the CSR department and CEO whereas the other half has the same distribution but the invitation is addressed only to the CSR department. B1 means that the peers of the company are added to the letter. C1 means that the invitation has been sent by post. D1 equals to adding the AUM to the text in the letter. E1 means that the letter has been translated to the local language. F1 Have UNGC/PRI Secretariat follow-up with a phone call or email to the company. F2 Customize letter with 1-3 sentences with ESG performance. F3 Issuing a press release naming some of the companies. F4 Contact the chair. F5 Nothing.

2.5.3. Sample Description

The original sample consisted of those firms listed in the FTSE All World Index as of January 2nd 2012. Originally, there were 2,885 firms in the database but after cleaning it, only 2,705 were left. I removed Taiwanese companies (political issues Taiwan-Chine-UN), duplicated firms and those based in Greece, Denmark, Norway, Morocco, Hungary and the Czech Republic (administrative reasons). I used this data to determine the prior probability employed to distribute firms within experimental groups. I developed the following logistic regression model:

$$SIGN_j = \beta_0+\beta_1 SustReport_j+\beta_2 Employees_j+\beta_3 MarketValue_j+\beta_4 CGScore_j+ \sum_{n=1}^{10} i_n Industry_j + \sum_{m=1}^{40} c_m Country_j + e_j$$

Where:

$SIGN_j$	=	The probability of the *i*th company signing the UNGC,1 if they have a high probability to sign, 0 otherwise
$SustReport_j$	=	A dummy variable equal to 1 if the *i*th company has submitted a sustainability report as 2010 according to Corporate Register and GRI Databases, 0 otherwise.
$Employees_j$	=	It is the natural logarithm of the number of both full and part time employees of the company Datastream 2011
MarketValue	=	It is the natural logarithm of the share price multiplied by the number of ordinary shares in issue Datastream 2011
CGScore	=	Measure representing the systems and processes of the governance of a company in relation with the long term interest of the investors (in percentage) Datastream 2011
Industry	=	The industry of the *i*th company FTSE 2011
Country	=	Country where the *i*th company is located FTSE 2011
e_j	=	Error term

The dependent variable *SIGN* is a dummy variable (1 if the company is already a UNGC signatory; zero otherwise). The right-hand side of the equation includes the submission, or not, of sustainability reports as 2010 according to Corporate Register and GRI databases; the size of the target firm, measured by market value and number of employees; and, a corporate governance score taken from Thomson Reuters (Datastream). Control variables include industry and country. There is a broad literature about the reasons for a company to become a UNGC signatory. However, studies focused on a particular region (Hamann et al 2009, Perez-Batres, et al 201 and 2011) or a theory (Bennie et al 2007 Bernhagen and Mitchel 2010; Jo and Harjoto 2011). The above variables where chosen as they are the most common across studies; In addition to the fact that size, country and industry have a high explanatory power (Tables 2.7 and 2.8 show the results of the model). Tables 2.9 and 2.10 provide an overview of the original data used to determine the probability of a firm to become member of the UNGC.

TABLE 2.7
Correlations Full Sample

	Variable	1	2	3	4	5
1	UNGC Member	1.0000				
2	Sustainability Report	0.3713	1.0000			
3	Employees (ln)	0.2250	0.2851	1.0000		
4	Market Value (ln)	0.2306	0.3482	0.3937	1.0000	
5	Corporate Gov Score	0.1001	0.1658	0.1249	0.2523	1.0000

Notes: This table shows the Pearson's correlation coefficients for the full sample (N=2,705). Size is measured by both market value (ln) and number of employees (ln) as provided by Datastream. The corporate governance score is taken from Asset4 and the values can vary from 0 to 1. Size and corporate governance values are as of year ended 2011. All the coefficients are significant at $p<0.05$.

TABLE 2.8
Testing Prior Probability to Join the UNGC

Variables	Model 1
Sustainability Report	1.6925***
Employees (ln)	0.5174***
Market Value (ln)	0.3683***
Corporate Governance Score	0.0186***
Intercept	-9.5107***
Country/Industry	Yes
Observations	2,705
PseudoR2	0.3323

Notes: This table shows the coefficients for the independent variables used to determine the prior probability to sign the UNGC (N=2,705). Relationships are depicted by the following signs: ***, **, *, and + to indicate their significance at 99.9%, 99%, 95% and 90% respectively.

Once the probabilities were obtained, I prepared the new sample for the experiment, this is, I removed all the firms that have joined the UNGC. I distributed the firms across the treatment and control groups according to their probabilities. I randomly removed 175 firms to form the control group. The remaining firms were allocated to 64 groups of 30 companies each (see Figure 2.3). In total, 3,120 letters and e-mails were sent. Unfortunately, about 90 emails were bounced back. The sample was updated even after of distributing the firms across groups due to companies joining while the letter was prepared or due to splits or mergers, resulting in 175 firms in the control group and 1,876 in the treatment group.

TABLE 2.9
Sample Description - Country

Country	NO UNGC MEMBERS				UNGC MEMBERS			
	Freq.	Percent	Cum.	Proportion	Freq.	Percent	Cum.	Proportion
AU	86	4.09	4.09	0.88	12	1.90	1.90	0.12
BELG	8	0.38	4.47	0.57	6	0.95	2.85	0.43
BRAZ	36	1.71	6.18	0.47	40	6.33	9.18	0.53
CAN	61	2.90	9.08	0.81	14	2.22	11.39	0.19
CHL	14	0.67	9.74	0.74	5	0.79	12.18	0.26
CHN	132	6.27	16.02	0.90	15	2.37	14.56	0.10
COL	2	0.10	16.11	0.22	7	1.11	15.66	0.78
CZE	3	0.14	16.25	1.00	0	0.00	15.66	0.00
DEN	1	0.05	16.30	0.08	12	1.90	17.56	0.92
EGY	10	0.48	16.78	0.71	4	0.63	18.20	0.29
FIN	5	0.24	17.02	0.36	9	1.42	19.62	0.64
FRA	24	1.14	18.16	0.28	61	9.65	29.27	0.72
GER	23	1.09	19.25	0.43	31	4.91	34.18	0.57
GRC	5	0.24	19.49	0.63	3	0.47	34.65	0.38
HK	119	5.66	25.14	0.99	1	0.16	34.81	0.01
HUN	2	0.10	25.24	0.50	2	0.32	35.13	0.50
IDA	82	3.90	29.13	0.67	41	6.49	41.61	0.33
INDO	22	1.05	30.18	0.92	2	0.32	41.93	0.08
IRE	3	0.14	30.32	1.00	0	0.00	41.93	0.00
ISR	35	1.66	31.99	0.85	6	0.95	42.88	0.15
ITA	20	0.95	32.94	0.61	13	2.06	44.94	0.39
JA	365	17.35	50.29	0.81	87	13.77	58.70	0.19
KOR	79	3.75	54.04	0.71	32	5.06	63.77	0.29
MAL	32	1.52	55.56	0.94	2	0.32	64.08	0.06
MAR	2	0.10	55.66	1.00	0	0.00	64.08	0.00
MEX	16	0.76	56.42	0.76	5	0.79	64.87	0.24
NETH	9	0.43	56.84	0.41	13	2.06	66.93	0.59
NOR	3	0.14	56.99	0.25	9	1.42	68.35	0.75
NZ	12	0.57	57.56	1.00	0	0.00	68.35	0.00
OEST	9	0.43	57.98	0.90	1	0.16	68.51	0.10
PAK	5	0.24	58.22	0.71	2	0.32	68.83	0.29
PER	2	0.10	58.32	0.67	1	0.16	68.99	0.33
PHIL	13	0.62	58.94	1.00	0	0.00	68.99	0.00
POL	11	0.52	59.46	0.69	5	0.79	69.78	0.31
PTL	3	0.14	59.60	0.33	6	0.95	70.73	0.67
RUS	24	1.14	60.74	0.92	2	0.32	71.04	0.08
SAF	57	2.71	63.45	0.79	15	2.37	73.42	0.21
SI	37	1.76	65.21	0.84	7	1.11	74.53	0.16
SP	6	0.29	65.49	0.21	23	3.64	78.16	0.79
SWED	15	0.71	66.21	0.45	18	2.85	81.01	0.55
SWIT	27	1.28	67.49	0.61	17	2.69	83.70	0.39
THAI	22	1.05	68.54	0.76	7	1.11	84.81	0.24
TUR	16	0.76	69.30	0.67	8	1.27	86.08	0.33
UAE	9	0.43	69.72	1.00	0	0.00	86.08	0.00
UK	78	3.71	73.43	0.68	37	5.85	91.93	0.32
USA	559	26.57	100.00	0.92	51	8.07	100.00	0.08
Total	**2,104**	**100.00**			**632**	**100.00**		

This table shows the country distribution for firms outside the UNGC and within the UNGC. Taiwan firms are excluded as they are not allow to participate in any initiatives of the UN. We can observe that the countries with highest representation in the UNGC are Japan (13.77%), France (9.65%) and USA (8.07%); however, when we look at the proportions considering firms in the same country we find that firms with the highest proportions are based in the European Union and that France has a strong membership (72%), Japan a mild membership (19%) and the USA is underrepresented (8%).

TABLE 2.10

Sample Description - Industry

Industry	NO UNGC MEMBERS				UNGC MEMBERS			
	Freq.	Percent	Cum.	Proportion	Freq.	Percent	Cum.	Proportion
Oil & Gas	119	5.66	5.66	0.69	53	8.39	8.39	0.31
Basic Materials	192	9.13	14.78	0.71	78	12.34	20.73	0.29
Industrials	373	17.73	32.51	0.77	114	18.04	38.77	0.23
Consumer Goods	251	11.93	44.44	0.75	85	13.45	52.22	0.25
Healthcare	118	5.61	50.05	0.81	28	4.43	56.65	0.19
Consumer Services	291	13.83	63.88	0.86	47	7.44	64.08	0.14
Telecommunications	68	3.23	67.11	0.72	26	4.11	68.20	0.28
Utilities	118	5.61	72.72	0.73	43	6.80	75.00	0.27
Financials	470	22.34	95.06	0.80	119	18.83	93.83	0.20
Technology	104	4.94	100.00	0.73	39	6.17	100.00	0.27
Total	**2,104**	**100.00**			**632**	**100.00**		

This table shows the number of firms inside and outside the UNGC per industry. Proportions of industry members show that general representation is higher for Financials (18.83%) and Industrials (18.04%) and lower for Telecommunications (4.11%) and Healthcare (4.43%). In terms of representation per industry Oil and Gas (31%) has the highest representation whereas Consumer Servicies (14%) and Healthcare (19%) are the less representative.

The final sample comprises 2,051 companies from 40 countries listed on the FTSE All World index (AW) that had not signed the UNGC - Ten Principles[9] as of March, 31 2013. The effect of the prior probability to join the UNGC is tested in some of the models as indicated in the following lines. Then, to examine the sensitivity of the results, the prior probability is substituted by the different variables used to determine such probability (i.e. size, industry and country). I also test the interaction of probability with the key independent variables. Table 2.11 reports the number of firms included in the experiment and their characteristics per country and industry.

As we can observe in Panel 1 of Table 2.11, the highest country participation comes from the USA, followed by Japan, China and Hong-Kong. Countries with the highest prior probability to sign the UNGC are mainly from Europe: Portugal is in

[9] Taiwan was excluded from the experiment because of its political issues with China. Czech Republic, Denmark, Greece, Hungary, Norway and Morocco were excluded for administrative reasons.

first place, Colombia in second, France in third, and Finland in forth. Therefore, it is consistent to see that European firms also have the highest average in submitting sustainability reports. Two size variables are included: the natural logarithm of market value and the natural logarithm of number of employees. The largest firms in the experiment, when looking at market value, are located in North America. And, in terms of the number of employees they are based in Russia, Thailand and Egypt. Again, the best scores for corporate governance come from European, Canadian and American firms.

Panel 2 of Table 2.11 shows descriptive statistics grouped by industry, which is defined according to the Industry Classification Benchmark (ICB) system. The top three industries in the sample are financials, industrials and consumer services. Regarding the highest scores of prior probability to sign the UNGC, oil and gas firms are the first, followed by basic materials, technology and consumer goods. However, when looking at the highest scores of sustainability reports submitted, the top reporting industry is utilities, followed by basic materials and technology. The largest firms in terms of market value are oil and gas, telecommunications, and technology; and, in terms of number of employees are telecommunications, consumer services and industrials. The industries with the highest corporate governance score are oil and gas, healthcare and technology.

TABLE 2.11

Sample Description

Panel 1. Distribution by country

Country	Freq.	%	Cum.	Prior_ Prob	Sust_ Rep	MV (ln)	Emp (ln)	CG_ Score
Australia	86	4.19	4.19	0.0938	0.4535	8.1212	4.0067	0.6947
Belgium	8	0.39	4.58	0.3842	0.6250	8.5960	3.8357	0.7081
Brazil	36	1.76	6.34	0.3731	0.2222	8.2733	4.2628	0.4771
Canada	61	2.97	9.31	0.1503	0.4754	9.2562	4.0770	0.7097
Chile	14	0.68	10.00	0.2401	0.3571	8.9395	4.1468	0.4598
China	132	6.44	16.43	0.0793	0.1439	7.1073	4.1920	0.4874
Colombia	2	0.10	16.53	0.6082	0.0000	8.6898	3.4968	0.5507
Egypt	10	0.49	17.02	0.2823	0.0000	6.9241	4.3722	0.5507
Finland	5	0.24	17.26	0.4754	0.6000	8.4631	3.9652	0.5789
France	21	1.02	18.28	0.5278	0.5238	8.4732	3.9686	0.5331
Germany	22	1.07	19.36	0.3677	0.4545	8.5031	4.0773	0.4168
Hong Kong	117	5.70	25.06	0.0084	0.1709	8.1834	3.9168	0.4869
India	82	4.00	29.06	0.2544	0.1220	7.8171	4.0521	0.4199
Indonesia	21	1.02	30.08	0.0789	0.0952	8.8193	4.0849	0.4475
Ireland	3	0.15	30.23	0.0185	0.3333	8.8050	3.6428	0.6236
Israel	35	1.71	31.94	0.0988	0.0857	7.0064	3.7394	0.5140
Italy	20	0.98	32.91	0.2675	0.5000	8.3823	4.2496	0.5667
Japan	362	17.65	50.56	0.1568	0.4309	8.0432	3.9176	0.2709
Korea	74	3.61	54.17	0.2168	0.2703	8.0959	3.6596	0.4537
Malaysia	32	1.56	55.73	0.0595	0.2188	8.5164	4.3411	0.5038
Mexico	16	0.78	56.51	0.1820	0.3125	8.8969	4.3044	0.4717
Netherlands	7	0.34	56.85	0.4312	0.7143	8.3524	4.0756	0.6757
New Zealand	12	0.59	57.44	0.0188	0.3333	7.2766	3.8723	0.6122
Austria	8	0.39	57.83	0.0722	0.5000	8.3206	4.2576	0.3340
Pakistan	5	0.24	58.07	0.2950	0.2000	6.9872	4.2611	0.5507
Peru	2	0.10	58.17	0.2705	0.0000	8.3095	3.9258	0.5205
Philippines	13	0.63	58.80	0.0221	0.3846	8.4085	4.1093	0.4274
Poland	11	0.54	59.34	0.2188	0.0909	8.0310	3.9217	0.3013
Portugal	2	0.10	59.43	0.7615	1.0000	8.8600	3.8969	0.6299
Russia	24	1.17	60.60	0.0654	0.2500	9.0757	4.6257	0.4938
South Africa	55	2.68	63.29	0.1620	0.6727	7.8646	4.1543	0.5386
Singapore	36	1.76	65.04	0.1338	0.1944	8.0740	4.3212	0.5491
Spain	4	0.20	65.24	0.4215	0.0000	8.2670	3.3575	0.5524
Sweden	12	0.59	65.82	0.3811	0.4167	8.4001	3.8869	0.6986
Switzerland	27	1.32	67.14	0.2617	0.4444	8.6785	3.8337	0.5329
Thailand	22	1.07	68.21	0.1742	0.1818	8.2486	4.5558	0.4940
Turkey	16	0.78	68.99	0.2474	0.1250	7.9709	4.1587	0.4678
UAE	9	0.44	69.43	0.0127	0.1111	7.7812	4.3707	0.5313
UK	73	3.56	72.99	0.2606	0.7260	8.8449	4.1399	0.8139
USA	554	27.01	100	0.0728	0.4097	9.1982	4.1473	0.7015
Total	**2,051**	**100**		**0.1410**	**0.3603**	**8.4078**	**4.0660**	**0.5363**

TABLE 2.11 (Continued)

Panel 2. Distribution by industry

Industry	Freq.	%	Cum.	Prior_ Prob	Sust_ Rep	MV (ln)	Emp (ln)	CG_ Score
Oil & Gas	114	5.56	5.56	0.2057	0.3947	8.9154	3.7594	0.6285
Basic Materials	190	9.26	14.82	0.1982	0.4895	8.2147	4.0359	0.4931
Industrials	363	17.7	32.52	0.1532	0.4215	8.1316	4.2272	0.5213
Consumer Goods	244	11.9	44.42	0.1656	0.4139	8.3299	4.2085	0.4934
Healthcare	114	5.56	49.98	0.1145	0.2895	8.6656	4.0201	0.5873
Consumer Services	288	14.04	64.02	0.0855	0.2986	8.3670	4.2354	0.5516
Telecommunications	62	3.02	67.04	0.1545	0.3387	8.7868	4.2765	0.5432
Utilities	113	5.51	72.55	0.1444	0.5044	8.5307	3.9016	0.5524
Financials	459	22.38	94.93	0.1114	0.2309	8.4256	3.8741	0.5296
Technology	104	5.07	100	0.1659	0.4231	8.7441	4.0418	0.5763
Total	**2,051**	**100**		**0.1410**	**0.3603**	**8.4078**	**4.0660**	**0.5363**

Notes: The sample comprises firms from 40 countries and 10 industries that have not signed the UNGC. The table shows the absolute (Freq.), relative (%) and accumulated (Cum.) frequency per country and industry. It also shows the prior probability (Prior_Pro) which is the value determined as shown before. The sustainability report (Sust_Rep) represents the average of firms submitting a CSR report according to Corporate Register database and GRI database. Size is measured using market capitalization (MV(ln); in USD) and number of employees (Emp(ln)) taken from Datastream; both values are transformed to natural logarithm. Corporate Governance score is taken from Asset4.

2.6. RESULTS

As of December 16th 2013, 132 companies from 27 countries in the treatment groups either replied the invitation letter or simply joined the initiative. Most of the companies that replied recognized in their letters that the UNGC and the PRI are important mechanisms in the field corporate social responsibility and responsible investment; however, more than half of the companies turned down the invitation. A number of reasons are the following:

a) They are participating in some other initiatives similar to the UNGC (e.g. GRI, ISO, FTSE4Good, and CDP).
b) Their operations are aligned to the UNGC principles; however, they do not consider that joining would benefit the company.
c) They do not wish to be members/ it is not a priority.
d) The parent company is already a member of the UNGC.
e) They do not want to be part of a "checklist crowd" but rather to focus on doing the work.

Figure 2.4 shows the engagement procedure and management reactions to the engagement. First, public firms no members of the UNGC are identified. Then, those firms are distributed among control and treatment groups. Thereafter, the information of the target firms is collected (CEO names, firm address and ESG information among others) in order to design the invitation letters which are later on send by email and post. Finally, five different types of management reactions were received: a) joined, b) joined and contacted the PRI, c) requested additional information, d) did not join but contacted the PRI, and e) did not join. The first four responses are considered as effective engagement as there was a reaction as a result of the invitation.

Engagement Procedure

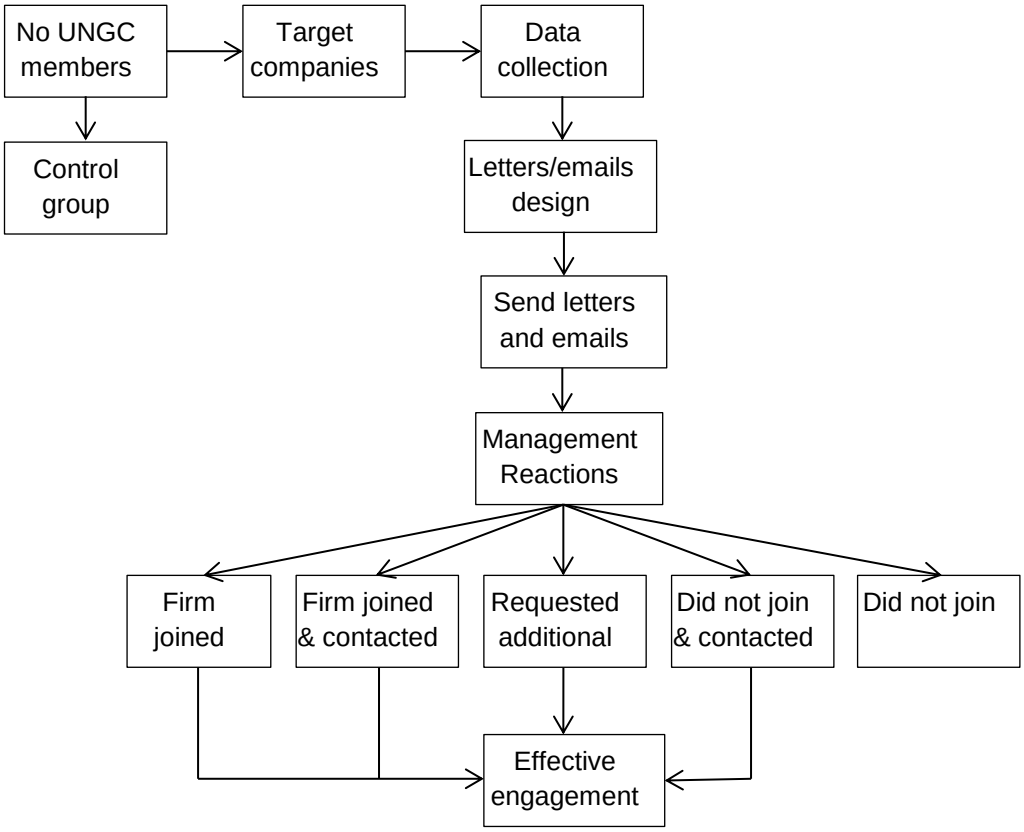


Figure 2.4. This figure shows the procedure followed to invite companies to join the UNGC and the reactions from management to that invitation. From five different reactions, only four are considered as effective engagement; this is, if a company signed or contacted the PRI without signing it is considered as effective engagement for the purpose of this paper.

For most of the companies that replied and turned down the invitation, it was important to make clear that they do recognize the Ten Principles of the UNGC:

> *"This should not be interpreted as in any way suggesting a lack of support for the ten principles espoused by the UN Global Compact. Our decision is based on two factors: we already provide extensive reporting on our environmental and social performance and do not believe it is necessary to add a further reporting requirement and methodology, and we are already a committed and paid member of quite a number of CSR organizations, and with current resources must limit further memberships".* (Target #115)

Furthermore, replies showed a friendly attitude providing plenty information about their CSR reports and listing the different awards that such companies have received.

> *"In light of your request, our CSR tram did look at the potential of [Target#34] becoming a signatory to the United Nations Global Compact. While we believe it is a worthy and important initiative, we feel our limited resources are best spent on enhancing our current management and reporting systems which are supportive of the United Nations Global Compact principles. One example of enhancement is moving our GRI Compliant SD Report towards best practice, which includes readying it for external assurance in 2014. As we look at continuous improvement as part of our systems, we will certainly review this again in the future".* (Target # 34)

Some other companies were very short in replying and limited to mention just one initiative without providing further information of their social and environmental performance. Most of the replies focused in justifying why they turned down the invitation; and a few more offered further information showing their availability to continue with the engagement, for instance, Target # 115 said:

> *"If there is additional information you require for signatories of your request, we would be pleased to provide it promptly"*

Figure 2.5. shows the final responses obtained from companies that contacted the UNGC/PRI or simply joined the initiative; a number of this responses changed over the period studied (i.e. a company requesting additional information, joined the UNGC later on). The larger proportion of firms (56%) replied but decided not to become members of the initiative. A very small number of companies showed serious interest in adopting the UNGC. 17 % joined the initiative but only 6 % got in touch with the UNGC/PRI.

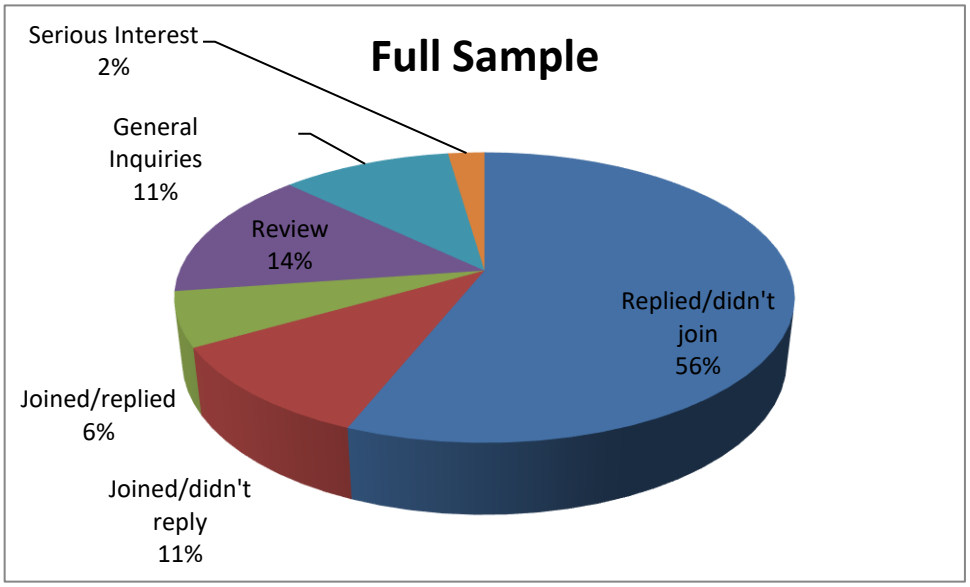


Figure 2.5. This figure shows the responses obtained from the 132 firms that contacted or joined the UNGC during the experiment.

engagement (control vs treatment groups) and becoming member of the UNGC (joined vs not joined). The table also shows that there is no significant difference between control and treatment groups regarding the submission of a sustainability report prior to the date of the experiment. The submission of a sustainability report suggests that the company has higher probability to sign the initiative. Panel 2 in Table 2.12, shows descriptive statistics for the full sample and for the two subsamples: control and treatment group. Missing values among control variables: market value, employees and corporate governance score were addressed via mean imputation (Wothke, 2000). As the following three variables are dummy variables: engagement, replied and sustainability report, my regression results will be robust to outliers. Panel 2 of Table 2.12, also shows that both subsamples, control and treatment groups have similar characteristics. Variable *Replied* denotes that a company contacted the PRI Clearinghouse after receiving the invitation; therefore, it only appears in the treatment group and is used in the model to test H1b.

TABLE 2.12

Groups Comparison and Descriptive Statistics (H1a)

Panel 1. Comparison of Treatment Group and Control Group

	Control (n=175)		Treatment (n=1,876)	
Joined	5	3%	22	1%
Did not join	170	97%	1,854	99%
Chi2=3.4960, p=0.062				
Sustainability Report	68	39%	671	36%
No Sustainability Report	107	61%	1,205	64%
Ch2=0.6629, p=0. 410				

Panel 2. Descriptive Statistics

Full Sample	**Mean**	**Std Dev**	**Max**	**Min**	**N**
Engagement	0.915	0.279	1.000	0.000	2,051
Probability	0.141	0.166	0.958	0.000	2,051
Sustainability Report	0.360	0.480	1.000	0.000	2,051
Market Value (ln)	8.408	1.171	12.850	4.465	2,051
Employees (ln)	4.066	0.665	6.342	0.000	2,051
Corporate Gover Score	0.536	0.239	0.960	0.017	2,051
Control Group	**Mean**	**Std Dev**	**Max**	**Min**	**N**
Probability	0.145	0.171	0.862	0.001	175
Sustainability Report	0.389	0.489	1.000	0.000	175
Market Value (ln)	8.420	1.160	12.193	4.605	175
Employees (ln)	4.074	0.655	6.342	1.380	175
Corporate Gover Score	0.558	0.240	0.960	0.020	175
Treatment Group	**Mean**	**Std Dev**	**Max**	**Min**	**N**
Probability	0.141	0.166	0.958	0.000	1,876
Sustainability Report	0.358	0.479	1.000	0.000	1,876
Market Value (ln)	8.407	1.173	12.850	4.465	1,876
Employees (ln)	4.065	0.666	5.693	0.000	1,876
Corporate Gover Score	0.534	0.239	0.960	0.017	1,876
Replied	0.063	0.243	1.000	0.000	1,876

Notes: Panel A shows the distribution of firms that joined the UNGC between control and treatment groups. The control group includes 175 firms that did not receive invitation to become member of the UNGC; the treatment group comprises all the firms that received the letter (1,876 firms) regardless of the type of tactic tested through the letter. Joined denotes that the firm has sent the commitment letter signed by the CEO; did not join refers to the firms that still outside the membership as of 16 December 2013. Sustainability Report denotes that the company has submitted at sustainability report in the past. Panel B shows the descriptive statistics for the full sample (N=2,051), control group (N=175) and treatment group (N=1,876).

The correlation matrix is shown in Table 2.13 for the dependent and independent variables. *Engagement*, the key variable on the first equation, is negatively and marginally correlated with the dependent variable *Joined*. The

constructed variable *Probability* and the result of the experiment, *Replied,* are positively and significantly correlated with *Joined* (0.11 and 0.13 respectively), which are also correlated between them (0.08). The only variable with a correlation coefficient greater than 0.50 is the relationship between *Probability* and S*ustainability Report* (0.59); this is expected as sustainability report is one of the variables to determine the prior probability. Size, measured by market value and number of employees, and the corporate governance score are only marginally correlated, therefore there is no problem with multicollinearity.

TABLE 2.13

Correlation Matrix

	1	2	3	4	5	6	7	8
1 Joined	1.00							
2 Engagement	-0.04+	1.00						
3 Probability	0.11***	-0.01	1.00					
4 Sustainability Report	0.06*	-0.02	0.59***	1.00				
5 Market Value (ln)	0.01	0.00	0.29***	0.29***	1.00			
6 Employees (ln)	0.03	0.00	0.28***	0.21***	0.34***	1.00		
7 Corporate Gov Score	-0.01	-0.03	0.07**	0.13***	0.23***	0.09***	1.00	
8 Replied	0.13***	-	0.08**	0.11***	0.13***	0.04	0.12***	1.00

Notes: This table shows the Pearson's correlation coefficients for the full sample (N=2,051). Size is measured by both market value (ln) and number of employees (ln) as provided by Datastream. The corporate governance score is taken from Asset4 and the values can go from 0 to 1. Size and corporate governance values are as of year ended 2011.

+p>0.10; *p<0.05; **p<0.01; and, ***p<0.001

The impact of engagement on the adoption of the UNGC

Table 2.14 reports the results for H1a hypothesis about the effectiveness of engagement. Model 1 shows that the treatment coefficient is negative and marginally significant (ß=-0.908; p<0.1). Furthermore, when I include the prior probability to sign the UNGC (Model 2), the effect of treatment is still negatively correlated (ß=-0.898; p<0.1), whereas the prior probability is significantly and positively correlated with engagement (ß=3.495; p<0.001). General results are similar when I test a) the interaction between engagement and the prior probability (Model 3), and b) when the prior probability is substituted by its determinants (Model 4). The use of interactions in a logistic model makes the results difficult to interpret. I conducted a sensitivity analysis for Model 3 in Table 2.14, the interpretation of the logit results are consistent with the original interactions. The intercept remains negative in all the models. This suggests that engagement through invitation letters does not benefit the UNGC membership size, adversely, it seems that target companies are less willing to adopt the initiative; therefore, results are inconsistent with H1a.

The impact of replying to the PRI on becoming member of the UNGC

Although my results above suggest that investor engagement[10] does not increase UNGC membership levels, my results reported in Table 2.15 indicate that the net negative effect is diminished when firms contact the UNGC/PRI. Most probably due to being subjected to more intense engagement relative to firms who avoided contacting the UNGC/PRI. In general, all models indicate that communicating with the PRI is strongly positive and statistically significant (ß=2.204; p<0.001). Thus,

[10] It can be debatable if it is correct to call it investor engagement or stakeholder engagement, since the ownership of the investors in target companies is unknown; however, the term 'investor engagement' is used in this paper because they have the power to invest or not in certain companies and investors do participate in the PRI.

my results are consistent with H1b. I conducted a sensitivity analysis for Model 3 in Table 2.15, to test the effect of the interactions. The interpretation of the logit results are consistent with the original interactions. Furthermore, I also tested the models on Table 2.15 including only firms with high probability to sign the UNGC and for firms in European countries. Results show no variation in the number of significant variables except for the interaction between firms that replied and their prior probability. The significance of the variables varies, and the coefficients are higher, Tables 2.16, 2.17 and 2.18. show the results for these tests.

TABLE 2.14

Testing the Effectiveness of Joining the UNGC

Variables	Model 1	Model 2	Model 3	Model 4
Engagement	-0.908+	-0.898+	-1.324+	-1.320*
	(-1.809)	(-1.766)	(-1.839)	(-2.328)
Probability		3.495***	2.122	
		(4.556)	(1.047)	
Engagement*Probability			1.638	
			(0.748)	
Sustainability Report				1.100*
				(2.154)
Market Value (ln)				-0.036
				(-0.146)
Employees (ln)				0.356
				(0.848)
Corporate Governance Score				-0.311
				(-0.253)
Intercept	-3.526***	-4.255***	-3.908***	-3.691
	(-7.772)	(-8.340)	(-6.122)	(-1.496)
Country/Industry	Excluded	Excluded	Excluded	Yes
Observations	2,051	2,051	2,051	2,051
Pseudo-R2	0.0094	0.0678	0.0699	0.2201

Notes: This table shows the results of the relationship between Engagement and the adhesion to the UNGC. The dependent variable is a dummy variable indicating one for those companies that joined the initiative, zero otherwise. The engagement variable is also a dummy variable where one means that the firm received an invitation letter, and zero means that firms is in the control group. The model controls for prior probability and determinants of prior probability. Relationships are depicted by the following signs: ***, **, *, and + to indicate their significance at 99.9%, 99%, 95% and 90% respectively.

TABLE 2.15

Testing the Effect of Replying on Joining the UNGC

Variables	Model 1	Model 2	Model 3	Model 4
Replied	2.204***	2.001***	2.097**	2.872***
	(4.855)	(4.316)	(2.762)	(4.364)
Probability		3.509***	3.597***	
		(4.001)	(3.481)	
Replied*Probability			-0.307	
			(-0.159)	
Sustainability Report				0.644
				(1.097)
Market Value (ln)				-0.111
				(-0.370)
Employees (ln)				0.547
				(1.067)
Corporate Governance Score				0.118
				(0.085)
Intercept	-4.825***	-5.534***	-5.560***	-5.959+
	(-17.981)	(-14.949)	(-13.663)	(-1.923)
Country/Industry	Excluded	Excluded	Excluded	Yes
Observations	1,876	1,876	1,876	1,104
Pseudo-R2	0.074	0.130	0.130	0.309

Notes: This table shows the results of the relationship between companies replying and its adhesion to the UNGC. The dependent variable is a dummy variable for those companies that joined the initiative. The Replied variable is also a dummy variable where one means that the firm contacted the UNGC/PRI, and zero otherwise. The model controls for prior probability to sign the UNGC, the interaction of replying prior probability, and variables used to determine the prior probability. This analysis only considers firms that received treatment (N=1,876). Relationships are depicted by the following signs: ***, **, *, and + to indicate their significance at 99.9%, 99%, 95% and 90% respectively.

TABLE 2.16

Testing the Effect of Replying on Joining the UNGC - High Probability

Variables	Model 1	Model 2	Model 3	Model 4
Replied	2.462***	2.409***	4.450***	4.661***
	(4.710)	(4.579)	(3.611)	(4.041)
Probability		2.347+	4.165**	
		(1.711)	(2.603)	
Replied*Probability			-5.120+	
			(-1.796)	
Sustainability Report				1.184
				(0.922)
Market Value (ln)				0.235
				(0.557)
Employees (ln)				-0.073
				(-0.098)
Corporate Governance Score				0.010
				(0.004)
Intercept	-4.232***	-5.083***	-5.885***	-7.673
	(-11.885)	(-7.726)	(-6.930)	(-1.468)
Country/Industry	Excluded	Excluded	Excluded	Yes
Observations	614	614	614	351
Pseudo-R2	0.127	0.145	0.168	0.4622

Notes: This table shows the results of the relationship between companies replying and its adhesion to the UNGC for firms with high probability to join the initiative. The dependent variable is a dummy variable for those companies that joined the initiative. The Replied variable is also a dummy variable where one means that the firm contacted the UNGC/PRI, and zero otherwise. The model controls for prior probability to sign the UNGC, the interaction of replying prior probability, and variables used to determine the prior probability. This analysis only considers firms that received treatment. Relationships are depicted by the following signs: ***, **, *, and + to indicate their significance at 99.9%, 99%, 95% and 90% respectively.

TABLE 2.17

Testing the Effect of Replying on Joining the UNGC - European Countries

Variables	Model 1	Model 2	Model 3	Model 4
Replied	2.480**	2.367*	8.470+	2.777*
	(2.651)	(2.473)	(1.888)	(2.563)
Probability		4.040+	10.562+	
		(1.939)	(1.887)	
Replied*Probability			-10.555+	
			(-1.696)	
Sustainability Report				1.357
				(1.031)
Market Value (ln)				-0.615
				(-1.092)
Employees (ln)				1.485
				(1.373)
Corporate Governance Score				-0.051
				(-0.021)
Intercept	-4.677***	-6.256***	-10.670*	-4.753
	(-6.584)	(-4.759)	(-2.455)	(-0.774)
Industry	Excluded	Excluded	Excluded	Yes
Observations	247	247	247	247
Pseudo-R2	0.1363	0.221	0.314	0.2635

Notes: This table shows the results of the relationship between companies replying and its adhesion to the UNGC for firms based in Europe. The dependent variable is a dummy variable for those companies that joined the initiative. The Replied variable is also a dummy variable where one means that the firm contacted the UNGC/PRI, and zero otherwise. The model controls for prior probability to sign the UNGC, the interaction of replying prior probability, and variables used to determine the prior probability. This analysis only considers firms that received treatment. Relationships are depicted by the following signs: ***, **, *, and + to indicate their significance at 99.9%, 99%, 95% and 90% respectively.

TABLE 2.18

Testing Tactics for Engagement [a]

Variables[b]	Model 1	Model 2	Model 3	Model 4
	Full Sample	HighPr	MedPr	LowPr
CEO/Chair	0.584**	0.484	1.522**	0.524
Market value (ln)	0.321**	0.324+	0.244	0.595*
Employees (ln)	0.028	0.096	-0.527	-0.057
Corporate Governance Score	0.661	2.081*	-0.333	-0.676
Sustainability Report	0.414+	0.598	-0.472	1.003
Intercept	-6.772***	-8.463***	-3.855	-7.711**
Country/Industry	Yes	Yes	Yes	Yes
Observations	1603	531	407	491
PseudoR2	0.1047	0.1562	0.1653	0.0929

[a]This table shows the relationship between engaged companies (columns) and treatments and explanatory variables (rows). Relationships are depicted by the following signs: ***, **, *, and + to indicate their significance at 99.9%, 99%, 95% and 90% respectively.

[b]The financial industry and the USA are considered as the base of the factor variables.

Testing investor salience and other supportive tactics

The description of the results is limited to the analysis of main or individual effects[11]. Table 2.19 shows the descriptive statistics for the full sample with treatment and its subsamples divided by tactics and firm characteristics. As we can see from Panel 1 of Table 2.19, the distribution of the tactics is nearly the same across the full sample and the three sub-samples: from *contacting the CEO* to *Language*, the mean is close to 50 percent meaning that the tactic was apply to half of the sample; whereas tactics from *Follow up* to *chair* were applied to one eight of the sample. Besides the tactics, there is a category called 'Nothing' which means that in the last level of interactions 50 percent did not receive any treatment (Figure 3.D.1 shows the distribution of the tactics). The last row in Panel 1 of Table 2.19 indicates the *strength* of the experiment,

[11] I omit to talk about the secondary effects (combination of strategies) as the number of responses was too low to perform a statistical analysis.

this is all the tactics were analysed and added them together, and the strongest option counts as one and weakest as zero. Therefore, *strength* ranks go from 2 points the weakest to 6 points the strongest. For instance, for the first tactic, contacting the CEO and the CSR department equals one whereas only contacting the CSR department equals zero. In the case of *Language* and *Channel* both account for one point as there is not significant difference expected among those that received the treatment and those that did not. Panel 2 of Table 2.19, shows the characteristics of the firms included in each subsample. It can be observed that low probability goes from 0.000 to 0.033; medium probability from 0.034 to 0.156 and the high probability from 0.156 to 0.958; therefore, it can be expected to see that the highest mean for sustainability report is within firms with high probability to sigh the UNGC. Largest firms both in terms of market value and number of employees are also in the high probability group going down to smallest firms in the low probability group. The mean of the corporate governance score is similar across the subsamples.

Table 2.20 shows the comparison of the groups that received the treatment with those that did not receive the treatment. Groups are also classified according to their prior probability to sign the UNGC. It can be seen that there is no association between the treatments (tactics) and the probability group; however, when we look at sustainability report, again we can see that those with a sustainability report have high chances to sign the initiative while those with medium and low probability have not submit a CSR report, at least during the period of study.

Table 2.21 presents the relationship between target firms (columns) and treatments and explanatory variables (rows). Target firms were analysed as part of the full sample and also in three different levels according to their probability to sign the UNGC. Treatments were tested both in an overall and individual models. In general,

my results show that contacting the chair (H3) in addition to the CSR department and following up (H7) the engagement with target companies are the most effective tactics. Furthermore, it is somewhat helpful to contact the CEO (H2). I tested CEO and Chair effect in a single variable and results are similar to those in Tables 2.18 and 2.20. I also find that the engagement process makes a bigger difference when firms have a high ex-ante likelihood to sign up to the initiative and are located in countries where the concern about environmental, social and governance issues is also predominant (i.e. Australia, Sweden). However, the remaining tactics related to the following hypotheses: AUM (H4), press release (H5), referencing peers' companies (H6) and ESG statement (H9) are not supported. My results also show that there is no significant difference between sending an invitation in English or local language (H8), neither in sending it by email nor by post (H10). This means that H8 and H10 are supported.

Results reported in Table 2.22 show that strength is important only in the subsample with high probability to sign the UNGC and in the overall sample.

TABLE 2.19

Descriptive Statistics for Full Sample with Treatment and Sub-samples

Variable	Full Sample (Treatment) (n = 1,876)				High Probability (n = 614)				Medium Probability (n = 630)				Low Probability (n = 632)			
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
Panel 1. Tactics																
ContactCEO	0.498	0.500	0	1	0.498	0.500	0	1	0.495	0.500	0	1	0.500	0.500	0	1
Peers	0.501	0.500	0	1	0.493	0.500	0	1	0.503	0.500	0	1	0.505	0.500	0	1
Post	0.494	0.500	0	1	0.487	0.500	0	1	0.497	0.500	0	1	0.498	0.500	0	1
AUM	0.497	0.500	0	1	0.495	0.500	0	1	0.497	0.500	0	1	0.500	0.500	0	1
Language	0.502	0.500	0	1	0.498	0.500	0	1	0.506	0.500	0	1	0.502	0.500	0	1
Follow up	0.126	0.332	0	1	0.127	0.333	0	1	0.125	0.331	0	1	0.125	0.331	0	1
ESG Sentence	0.125	0.331	0	1	0.125	0.331	0	1	0.124	0.330	0	1	0.125	0.331	0	1
Press Release	0.124	0.330	0	1	0.124	0.330	0	1	0.125	0.331	0	1	0.123	0.329	0	1
Chair	0.123	0.329	0	1	0.121	0.326	0	1	0.122	0.328	0	1	0.127	0.333	0	1
Nothing	0.502	0.500	0	1	0.503	0.500	0	1	0.503	0.500	0	1	0.500	0.500	0	1
Strength	3.994	0.998	2	6	3.984	0.996	2	6	3.992	0.998	2	6	4.005	1.000	2	6
Panel 2. Firm Characteristics																
Probability	0.141	0.166	0.000	0.958	0.331	0.163	0.156	0.958	0.081	0.036	0.034	0.156	0.015	0.009	0.000	0.033
Sustainability Report	0.358	0.479	0.000	1.000	0.735	0.442	0.000	1.000	0.325	0.469	0.000	1.000	0.024	0.152	0.000	1.000
Market Value (ln)	8.407	1.173	4.465	12.850	8.785	1.182	5.925	12.850	8.329	1.088	4.802	11.972	8.116	1.148	4.465	11.314
Employees (ln)	4.065	0.666	0.000	5.693	4.322	0.571	1.568	5.693	4.051	0.618	1.079	5.668	3.830	0.709	0.000	5.663
Corporate Gov Score	0.534	0.239	0.017	0.960	0.546	0.252	0.022	0.960	0.534	0.236	0.018	0.955	0.522	0.229	0.017	0.958

Notes: This table shows the descriptive statistics for the full sample and sub-samples of those companies that received treatment. Panel 1 shows the characteristics of the tactics and Panel 2 the characteristics of the firms.

TABLE 2.20

Treatment Groups Comparison

	High Probability (n=614)		Medium Probability (n=630)		Low Probability (n=632)	
Contact CEO & CSR	306	49.84%	312	49.52%	316	50.00%
Contact CSR	308	50.16%	318	50.48%	316	50.00%
Chi2 (2)=0.0295, p=0.985						
Peers	303	49.35%	317	50.32%	319	50.47%
No Peers	311	50.65%	313	49.68%	313	49.53%
Ch2 (2) =0.1845, p=0.912						
Post	299	48.70%	313	49.68%	315	49.84%
Email	315	51.30%	317	50.32%	317	50.16%
Ch2 (2) =0.1907, p=0.909						
AUM	304	49.51%	313	49.68%	316	50.00%
No AUM	310	50.49%	317	50.32%	316	50.00%
Ch2 (2) =0.0307, p=0.985						
English	306	49.84%	319	50.63%	317	50.16%
Local Language	308	50.16%	311	49.37%	315	49.84%
Ch2 (2) =0.0803, p=0.961						
Follow up	78	12.70%	79	12.54%	79	12.50%
No Follow up	536	87.30%	551	87.46%	553	87.50%
Ch2 (2) =0.0131, p=0.993						
ESG Sentence	77	12.54%	78	12.38%	79	12.50%
No ESG Sentence	537	87.46%	552	87.62%	553	87.00%
Ch2 (2) =0.0079, p=0.996						
Press Release	76	12.38%	79	12.54%	78	12.34%
No Press Release	538	87.62%	551	87.46%	554	87.66%
Ch2 (2) =0.0129, p=0.994						
Chair	74	12.05%	77	12.22%	80	12.66%
No Chair	540	87.95%	553	87.78%	552	87.34%
Ch2 (2) =0.1133, p=0.945						
Nothing	309	50.33%	317	50.32%	316	50.00%
Treatments	305	49.67%	313	49.68%	316	50.00%
Ch2 (2) =0.0173, p=0.991						
Sustainability Report	451	73.45%	205	32.54%	15	2.37%
No Sustainability Report	163	26.55%	425	67.46%	617	97.63%
Ch2 (2) =689.1754, p=0.0000						

Notes: This table compares the number of target companies between groups that received the treatment and those that did not received it. Sample is split in high (n=614), medium (n=630) and low (n=632) probability to sign the initiative. The first five treatments are applied to half of the sample whereas each of the last four treatments are applied to an eighth of the sample. The comparison of 'Nothing' vs 'Treatments' refers to the total of these last four treatments (n=934) versus those did not received any of those last treatments (n=942). Furthermore, the table shows the number of companies that comply with a sustainability report in each group.

TABLE 2.21

Testing Tactics for Engagement [a]

Variables[b]	Model 1	Model 2	Model 3	Model 4
	Full Sample	HighPr	MedPr	LowPr
Main effects				
Contact CEO	0.464*	0.200	1.115*	0.737+
Peers	-0.014	0.633+	-0.542	-0.335
Post	-0.137	0.044	-0.521	0.292
AUM	-0.130	-0.281	0.287	-0.02
Language	-0.259	-0.247	-0.652	-0.206
Follow up	0.787**	1.273**	-0.732	0.781
ESG Statement	0.506+	0.484	0.580	0.507
Press release	-0.341	0.813	-1.826+	-1.468
Chair	0.828**	1.791***	0.751	-0.04
Controls				
Market value (ln)	0.325**	0.334+	0.376	0.658*
Employees (ln)	0.036	0.084	-0.613	-0.107
Corporate Governance Score	0.606	2.224*	0.312	-0.732
Sustainability Report	0.404+	0.639	-0.514	0.918
Intercept	-6.715***	-9.353***	-4.025	-8.309**
Country/Industry	Yes	Yes	Yes	Yes
Observations	1603	531	407	491
PseudoR2	0.1236	0.2126	0.2101	0.1334

Notes: [a]This table shows the relationship between engaged companies (columns) and treatments and explanatory variables (rows). Relationships are depicted by the following signs: ***, **, *, and + to indicate their significance at 99.9%, 99%, 95% and 90% respectively.

[b]The financial industry, the USA, and no extra treatments (tactics) were considered as the base of the factor variables.

TABLE 2.22

Testing Tactics for Engagement [a]

Variables[b]	Model 1	Model 2	Model 3	Model 4
	Full Sample	HighPr	MedPr	LowPr
Strength	0.216*	0.415*	0.173	0.148
Market value (ln)	0.314**	0.322+	0.185	0.592*
Employees (ln)	0.047	0.109	-0.366	-0.027
Corporate Governance Score	0.645	2.237*	-0.472	-0.763
Sustainability Report	0.403+	0.578	-0.527	1.107
Intercept	-7.303***	-10.098***	-3.458	-8.054**
Country/Industry	Yes	Yes	Yes	Yes
Observations	1,603	531	407	491
PseudoR2	0.1005	0.1679	0.1176	0.0881

Notes: [a]This table shows the relationship between engaged companies (columns) and strength of treatments and explanatory variables (rows). Relationships are depicted by the following signs: ***, **, *, and + to indicate their significance at 99.9%, 99%, 95% and 90% respectively.

[b]The financial industry and the USA were considered as the base of the factor variables.

2.7. DISCUSSION

The adoption of the UNGC is well received among the European community. The PRI, also under the umbrella of the United Nations, is based in London and has participated in a number of campaigns encouraging the adoption of the Ten Principles promoted by the UNGC (Gond and Piani, 2013). Spanish firms claim to obtain economic and reputational gains from the UNGC membership (Arevalo et al. 2013). The European financial markets also react positively to the adoption of the initiative (Coulmont and Berthelot, 2015; Janney et al., 2009). Scandinavian socially responsible investors consider those principles as part of their criteria for investment (Bengtsson, 2008). Other important firms such as Robeco, an investment company in the Netherlands, has include the violation to the UNGC guidelines as part of its exclusion policies (Robeco, 2014). Therefore, we can assume that the participation in the UNGC is well regarded by socially responsible investors and it is expected that they try to influence companies to comply with it.

Letter campaign is a recurrent practice in shareholder engagement where low social performance or controversial issues are highlighted (soft engagement). The campaign analysed in this paper includes a large number of companies around the world; however, there were few responses. By using the framework proposed by Gifford (2010) for investor salience based on Mitchell's et al. (1997) Stakeholder Theory, I identified the three main attributes (power, legitimacy and urgency) and their respective subcategories. Stakeholders participating in the experiment lack or at most have weak power, namely coercive, utilitarian and normative. The attribute of legitimacy appears in its four categories: individual, organisational, societal and pragmatic. Individual and organisational legitimacy are closely related to the PRI itself. Societal legitimacy can be observed from the fact that companies based in

European countries have greater support for ESG practices in general and showed stronger results for this type of engagement. The business case for this engagement was not strong enough which is translated into poor pragmatic legitimacy. The third attribute that managers consider at the moment of making decisions about a request from their stakeholders is urgency, which depends on time-sensitiveness and criticality for the stakeholders. The request in the experiment was time-sensitive, as there was a deadline for the submission of firms' response. Furthermore, it was critical for this group of shareholders, and it is clearly understandable that the PRI and the UNGC work in partnership because both organizations were launched by the United Nations; however, it could be the case that it was perceived more as a marketing campaign than an engagement to enhance sustainable practices. Previous studies mentioned a number of social, environmental or ethical constraints in their letters, for instance Becht et al., (2009) and Vandekerckhove et al., (2007). However, this campaign was more friendly and limited to inviting companies to join the UNGC.

The engagement studied reveals to some degree the three attributes for stakeholder salience; however, the engagement did not had a strong business case, one of the two attributes that Gifford (2010) find to be relevant for successful engagement. The other essential attribute is agreement with the values of the managers. Results show that it makes a difference to engage with the chair of target companies but this could be easily done through the different networking events where it happens to bring investors and managers together.

Another limitation presented in this study is the fact that target companies were 'laggards'. In other words, these companies were not interested in joining the UNGC at any point since it was launched 12 years ago. The academic literature documents a number of reasons to become members of an initiative. These mainly include strategic,

ethical and economic reasons, and if we consider that the spectrum of initiatives is wide, the existence of a stronger business case to join the initiative is required; as Gifford (2010) concludes that the most important elements of investor salience are *'the business case and the values of the target company managers'* (p. 97). Furthermore, a number of firms argued that they were not ready to take part in an initiative such as the UNGC because they were just starting to implement ESG practices, therefore another interesting path to investigate would be the level of ESG implementation that companies have prior to joining this type of initiatives.

In addition, a number of companies that contacted the PRI but did not join the UNGC argued that they have implemented environmental and social actions, which are in line with the Ten Principles but were not interested in joining the UNGC. This fact deserves more attention because it could be the case that firms respect the UNGC and did not join to show a strong CSR conviction to investors defending their current practices by avoiding undertaking the initiative in a symbolic manner (i.e. just to comply with investors desires).

Another recommendation for further research is to follow up with companies that joined to see how they have improved since adopting the UNGC, this could not be done at the moment as sufficient time is necessary to implement any policy or practice within normal operations. The spirit of this type of engagement is to change environmental, social and corporate governance behaviour. Therefore, it is not enough just to sign: any real change requires to invest human, material and financial resources in order to produce an impact. If firms just join but do not improve, then the efficacy of the engagement is questionable.

Moreover, this experiment was worldwide. Results show that responses from companies were higher in those countries where ESG is prevalent; therefore, further

research could look at what mechanisms work better for Latin-American or African countries where the perception of ESG is low and the institutional environment might be more difficult to infiltrate.

2.8. CONCLUSIONS

I have analysed the engagement lead by a group of investors, members of the Principles for Responsible Investment with US$3.3 trillion in AUM, inviting companies to join the United Nations Global Compact. In so doing, I tested the effectiveness of nine different tactics commonly used in soft engagement by investors to enhance environmental, social and corporate governance practices. The privileged access to develop this 'natural field experiment' allows to this paper to contribute to the literature on experimental designs.

In general terms the experiment might not have shown a successful engagement; however it shows assertions presented in previous literature. The experiment shows the importance of contacting CEOs and chairs from target companies as a means to initiate dialogue. The next step would be to sit with managers and have a more natural conversation on the demanded topic as suggested by Thomson and Bebbington (2005). Walls and Berrone (2017) point out that CEOs with expertise on environmental issues will enhance the environmental performance of the company. We could take this finding and extended to social issues as well and expect more emphatic CEOs. Furthermore, the arguments used by stakeholders must state a strong 'business case' in order to catch the attention of the management and have a successful engagement.

This paper contributes to the understanding of engagement applied within different context showing that this practice works better in countries where ESG

claims are more widespread. Holland (2011) proposes Fund Managers need to study the institutional setting and how it is changing. The Urgency element needs to be critical within the institutional context of the firm. In this vein, Sakuma and Louche (2008) suggest that each country should develop its own model for socially responsible investment and therefore, for engagement practices.

Therefore, this work provides some evidence for shareholder activists and other groups of stakeholders and academic literature on the field on how (not) to engage with target companies keeping on mind that the invitation letter was regarded as the starting point for deeper engagement. Social Movement Theory help us to understand the results of the experiment, this is, the social pressures exerted by the PRI on firms to join had more impact on European countries where the PRI is recognized within the institutional field. The experiment supports previous evidence in that firms seen as part of the institutional field, are shaped to its environment, this is firms that are sensible to CSR will also consider to join the UNGC or at least to respond to the engagement. In addition, European countries are used to be confronted by activists either regarding to corporate governance or to environmental and social issues, contrary to other countries where this type of practices have negative results instead of been seen as fruitful (Adegbite, 2012).

This study also has implications for target firms which can use this type of engagement to their favour by gathering information that might help them to enhance their sustainability reports and learn and apply these practices with other stakeholders.

Finally, because engagement and its different tactics are multidisciplinary, this research also contributes to literature on public relations, marketing, accounting and strategy.

APPENDIX

Appendix. Example of a standard letter

21 March 2013

Please reply to:

[redacted]

Dear «[redacted]»,

Re: Investor request to become a UN Global Compact Participant

We are writing to invite your organization to consider becoming a participant of the United Nations Global Compact.

The UN Global Compact is a strategic initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption. With approximately 7,000 corporate signatories in 135 countries, participation in the Global Compact initiative has become a critical indicator of a company's ability to identify and manage environmental, social and governance (ESG) issues that are material to investors. As a primary driver of globalization, companies can help ensure that markets, commerce, technology and finance advance in ways that benefit economies and societies.

We are a group of 34 investors, signatories to the United Nations-backed Principles for Responsible Investment (PRI). We believe that environmental, social and governance (ESG) issues have a significant impact on long-term financial returns. Taking account of these issues not only improves financial performance, but also helps better align our investments with the broader objectives of society.

Participating in the UN Global Compact and fully respecting relevant reporting requirements sends a strong signal to investors that a company is aware of the financial implications of ESG issues and is proactively incorporating the ten universally accepted principles of the Global Compact in its business model and strategy.

We have noted your company is not currently a member of the UN Global Compact. As current and potential shareholders in your company, we strongly encourage you to endorse the Global Compact and become actively involved in its work to build and share practical solutions for corporate sustainability. You can find more information on the concrete benefits of participating and how to join the UN Global Compact at www.unglobalcompact.org/HowToParticipate/index.html.

If you do not feel that the UN Global Compact is right for your organization, we would be interested to learn what your reservations are. We would also be grateful if you would provide us with information on what other approaches you take to manage ESG issues at a strategic and operational level in your company.

We look forward to hearing from you regarding your potential participation in the UN Global Compact by 24 May 2013.

Yours sincerely,

CHAPTER 3

ESG drivers for the Adoption of the UN Global Compact

Abstract[12]

This chapter explores the relationship between corporate social performance (CSP) and the adoption of the United Nations Global Compact (UNGC) as the strategy for disclosure. Moreover, I explore whether the dimensions of CSP, namely environmental, social and corporate governance, are different over the years. I also analyse whether the existence of controversies influence the adoption of the initiative as pointed by the opponents of the UNGC. The sample covers 2,614 firms from the FTSE all world index for the period 2003-2012 generating 12,754 firm-year observations. Event History Analysis is employed for the calculation of the results. Results show that CSP is different between signatories of the UNGC and not signatories, and that those differences change over time. In all the cases, the CSP is significant and positively related to the adoption of the Ten Principles; however, the impact of the three dimensions is different at different points in time. The contribution for academics, practitioners, policy makers and other stakeholders is discussed.

Keywords: changes over time, controversies, ESG, event history analysis, UNGC.

[12] First drafts of this paper were presented at BAFA Doctoral Colloquium (Manchester, 2015); ScotDoc (Glasgow, 2015), and CSEAR (London, 2015).

3.1. INTRODUCTION

In the last decades, the number of voluntary initiatives to account for environmental, social, and corporate governance (ESG)[13] practices has increased (i.e. United Nations Global Compact (UNGC), Global Reporting Initiative (GRI) and Business for Social Responsibility (BSR)). There are different classifications of these initiatives, for instance, Gilbert, Rasche and Waddock (2011) divide these initiatives into principles-based, awarding certificates, reporting guidelines and standardized processes.

Academic literature in the field focuses on why companies become members of these initiatives (stakeholders' pressures for example) and whether these initiatives impact on the CSR and financial performance of their members. However, in order to understand the impact of such initiatives, it is necessary to acknowledge that environmental, social and corporate governance practices have been implemented a priori and this is an aspect that many studies have failed to consider. In this regard, I rise the following question: Does corporate social performance influence the adoption of the UNGC? I focus on the UNGC which is one of the largest worldwide initiatives based on Ten Principles that cover human rights, environmental issues, labour conditions and anticorruption practices. Additionally, I also aim to provide some elements to partially help to disentangle the issue risen by Rasche, Waddock and McIntosh (2013) regarding the isolation of '*the effects of the Global Compact participation'* (p. 23) in order to measure the impact of the initiative.

It is argued that voluntary initiatives are adopted by firms as a strategic advantage to legitimate CSR practices (see for instance Herremans et al 2009). Academic literature on strategic management shows that in general, practices,

[13] The terms ESG, CSP and CSR are interchangeable in this paper. I acknowledge the difference among both definitions; however, the academic literature in this field tends to amalgamate them and difficult to separate for the purpose of this study.

programmes or initiatives are not adopted by all participants at the same time. I split the sample within three different groups attending similar number of years to caught differences across adopters of the initiative. Literature distinguishes that early adopters tend to obtain the 'first mover' advantage, followed by participants that are influenced by mimetic isomorphism and for those participants that resist to change or do not want to bear the cost of innovation despite of the potential benefits it might generate. While I do not use these labels for the groups, I mention these characteristics to highlight that there are differences across members and the point in time when they join the UNGC. Having said that, the second aim of this paper is to analyse the changes on the level of ESG over time.

Research on CSR voluntary initiatives in general, and the UNGC in particular has created an inconclusive debate where positive results have been diminished by the absence of a monitoring framework, free-riding and greenwashing (Hamann, Sinha, Kapfudzaruwa and Schild, 2009; O'Sullivan and O'Dwyer, 2009). In this paper, I also analyse part of the criticism around the UNGC by considering the existence of controversies at firm level to understand if they are related to the adoption of the initiative and therefore, if such adoption could be an indicator for bluewashing[14]. The aim is not to claim the existence of free-riding but instead to provide signals for potential misbehaviour.

Findings from the event history analysis and logistic regression models show that the existence of ESG practices is significantly and positively correlated to the adoption of the UNGC; however, the impact of each dimension (i.e. environmental, social and corporate governance) is different over time. Members in Group 1 are

[14] The term 'bluewashing' refers to the use of the UNGC membership as a mechanism for image management (i.e. legitimation) without a substantial change on behaviour (see Banerjee 2007 for an extended explanation).

particularly motivated by social performance. Corporate governance is an additional driver for Group 2. Finally, in the case of Group 3, the three elements are significant although no with the same intensity.

This study is particularly important for academics, policy makers, managers, responsible investors and other stakeholders interested in firms' behaviour towards CSR voluntary initiatives. In the academic field, this paper adds to the literature on CSR, particularly, to the understanding of the role of the United Nation Global Compact in the diffusion and legitimation of CSR practices. For policy makers, the findings of this paper contribute to the understanding of the behaviour and strategy used by the membership of these frameworks. Managers can find in this paper, elements to support their strategic decisions related to CSR implementation and legitimation. Stakeholder activists (responsible investors, employees, NGOs and other stakeholders) might find this paper useful for engagement purposes (i.e. understanding the characteristics of late adopters despite having a good CSP).

The next section presents the background and development of hypotheses. The third section describes the data and methodology employed in the study. The fourth section presents the results obtained from the analysis. Next, the discussion and suggestions for further research are presented. Finally, I close the paper with some remarks.

3.2. BACKGROUND AND HYPOTHESIS DEVELOPMENT

3.2.1. Introducing the UNGC

The UNGC, is regarded as one of the most important and largest memberships promoting sustainable practices, was launched by the United Nations in July, 2000 (Kell, 2005; Rasche, Waddock and McIntosh, 2013). The initiative is based in Ten Principles that comprise four areas: labour, human rights, environment and anticorruption practices (Table 3.1). The initiative do not only admits profit organizations but also academia, NGOs and governments (UNGC, 2015b). The commitment with the UNGC starts with a letter signed by the management of the interested organization to the UN Secretary-General Ban Ki-moon manifesting their desire to integrate the Ten Principles within their activities, processes and strategies. Business participants are committed to submit an annual report, called 'Communication on Progress' (COP), which contains the practices that have been implemented in order to align their operations with the principles voluntary accepted. Members that failed to disclose such information are classified as non-communicating participants and, if the omission is not amended, companies are delisted from the initiative (UNGC, 2014).

From its inception, the initiative has been criticized by NGOs, activists and academics for being considered as a tool for clearing corporate image and reputation due to the lack of coercive mechanisms for monitoring membership performance (Arevalo, 2010; Berliner and Prakash, 2014; Sethi and Schepers, 2014, Williams, 2004). Nevertheless, the UNGC has evolved by implementing the COP (2005), by creating the non-communication status with the risk to be delisted (2007) and more recently, by introducing the *'advanced level'* status (2012) and a voluntary registration fee (2014). Figure 3.1 shows the changes in the UNGC framework; all together, these

changes are helping to build trust in the initiative (Gilbert and Behnam, 2013). Supporters of the initiative argue that the purpose of the UNGC is to serve as a forum for learning and networking where members decide to participate voluntary (Gilbert and Benham, 2013; Gilbert, Rasche and Waddock, 2011; Kell, 2005).

TABLE 3.1
UNGC: The Ten Principles

Human Rights
Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights.
Principle 2: Make sure that they are not complicit in human rights abuses.
Labour
Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
Principle 4: The elimination of all forms of forced and compulsory labour.
Principle 5: The effective abolition of child labour.
Principle 6: The elimination of discrimination in respect of employment and occupation.
Environment
Principle 7: Businesses should support a precautionary approach to environmental challenges.
Principle 8: Undertake initiatives to promote greater environmental responsibility.
Principle 9: Encourage the development and diffusion of environmentally friendly technologies.
Anti-Corruption
Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

Notes: Adapted from *The Ten Principles of the UN Global Compact* (UNGC, 2016c). Retrieved from https://www.unglobalcompact.org/what-is-gc/mission/principles.

Moreover, academic literature on the operational aspect of the UNGC has paid particular attention to three themes: a) the impact of UNGC membership, b) characteristics of its constituents, and c) reasons for joining (Rasche et al., 2013). The evidence about the impact of the UNGC on corporate performance is mixed. In a study carry out by Hamann et al. (2009), the authors do not find any effect of the UNGC nor of the JSE Socially Responsible Investment Index on firms listed in the Johannesburg Stock Exchange. Arevalo and Aravind (2010) find that active UNGC members based on the US are less affected by economic crises than passive members.

In terms of who joins the initiative, research mainly covers the distribution of members across the globe, their industry and size. The first acknowledgment made by academics is the extensive acceptance of the Ten Principles in Europe and the lack of enthusiasm from American firms (Arevalo et al., 2013; Coulmont and Berthelot, 2015; Janney, Dess and Forlani, 2009). In particular industries, for instance in telecommunications, Runhaar and Lafferty (2009) find that the UNGC does not enhance CSR performance.

Regarding the drivers of UNGC adoption, research shows that firms have a number of reasons to join the initiative. Cetindamar and Husoy (2007) carry out a survey among members of the initiative to understand why they adopted it; responses were classified within three categories: ethical drivers, economic drivers or both (i.e. stakeholders' pressures; customer and employees' satisfaction). They find that UNGC membership improves the corporate network and image. From the institutional theory perspective, mimetic and normative isomorphism are also important drivers (Chen and Bouvain, 2009; Pérez-Batres, Miller and Pisani, 2010). Additionally, in a study conducted by Janney et al. (2009) it was found that in the short-term shareholders of European-based firms react positively whereas shareholders of US-based firms react

negatively, suggesting that joining can cause a financial impact disregard of the performance. The authors also find a negative reaction of the markets to the firms' omission to submit an annual report (COP) to the UNGC.

To sum up, despite the academic efforts to know more about the UNGC, the relationship between corporate social performance and the initiative has receive little attention.

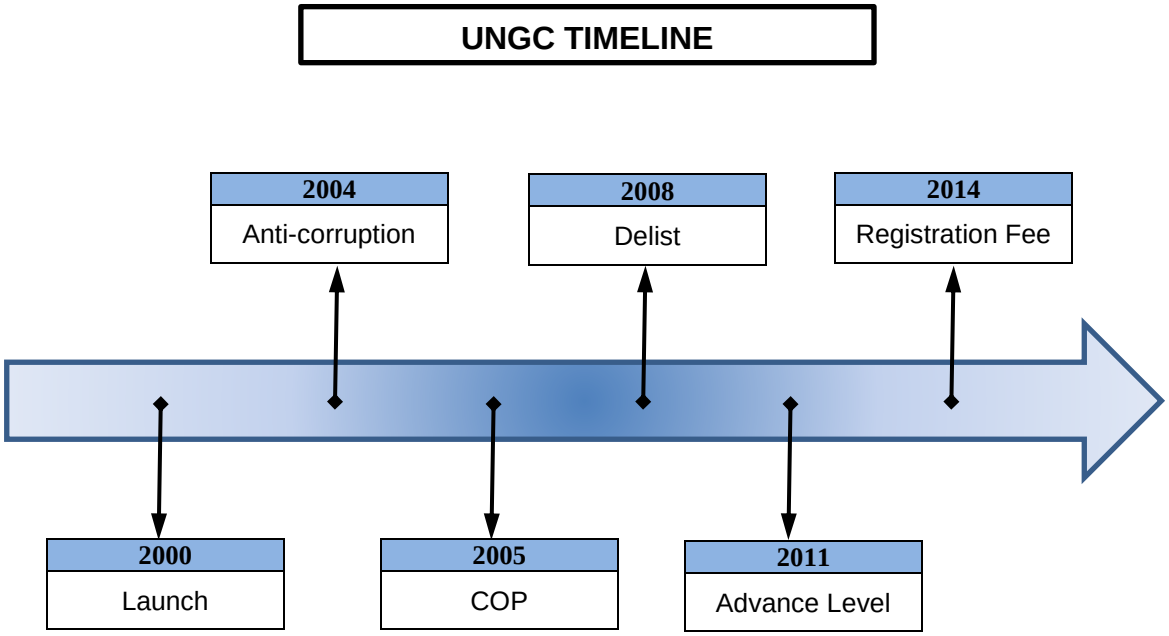


Figure 3.1 This figure shows the main changes that the UNGC-Ten Principles initiative has suffered since it was launched in July, 2000 when it started with only nine principles. Then principle was added in June, 2004 to incorporate the avoidance of bribery and corruption practices. Later on in July, 2005, the reporting mechanism was implemented: business participants must submit a communication of progress (COP) report describing the activities that they have undertaken to comply with the Ten Principles. In 2008, it was established that those companies that fail to submit the COP would be delisted from the membership (the status of participants can be check in the UNGC website). From 2011, companies with more experience in reporting were granted a distinction. In 2014, a registration fee was implemented.

3.2.2. ESG Performance as a Driver for UNGC Adoption

Usually, firms have established a number of environmental, social and corporate governance practices, policies and programmes that are aligned with the Ten Principles prior to becoming members of the UNGC (Berliner and Prakash, 2014; Janney et al., 2009; Rasche et al, 2013; Runhaar and Lafferty, 2009). Companies implement environmental, social and corporate governance practices, programmes and policies for a number of reasons. One of the reasons, is that they are convince about their responsibility towards their community, their shareholders and other stakeholders, so their actions are intrinsic and ethical, and might be considered as pure altruism (Cetindamar and Husoy, 2007).

Another reason is the pressure from their stakeholders (Freeman, 1984; Pérez-Batres et al., 2012), in this case, the management of companies pays attention to the demands of their stakeholders in the extent that those stakeholders are salient for the management (Mitchel at al., 1997). Stakeholders can exert pressures over corporations according to their power and urgency of the issue that they are demanding among other elements (Gifford, 2010). Scott (2001), based on DiMaggio and Powells (1983) isomorphism processes, proposes three basic pillars for corporate change: regulative, normative and cultural-cognitive. The regulative pillar is normally related to the application of governmental laws. Whereas the normative pillar is related to legitimacy, this is, organizations should behave in such way that their actions are believable according to *the ´socially constructed system of norms, values, beliefs and definitions´* (Suchman 1995, p. 574). And the cultural-cognitive pillar is also related to legitimacy. In this regard, Matten and Moon (2008) argue that *´The U.S. and European cultural systems have generated very different broad assumptions about society, business, and government´* (2008, p. 408). This is, aligning behaviour with the

cultural context is a way for legitimacy and reputation management. For instance, Ioannou and Serafeim (2012) find that the individualistic culture favours corporate social performance in countries with for example Protestant heritage. In this way, actors can be perceived by a wider spectrum of stakeholders. In this line, Pérez-Batres et al. (2012) find that community and consumers are important drivers for the adoption of voluntary CSR initiatives.

And, a third reason is the result of mandatory policies established by the government or the industry. These reasons might be linked to other drivers namely monetary or strategic (reputation and legitimacy) (Cetindamar and Husoy, 2007). This is related to the regulative pillar proposed by Scott (2001) where the existence of monitoring and punishment mechanisms are in place. Matten and Moon (2008) suggest that codes of conducts among other voluntary initiatives can be seen as well as part of the coercive isomorphism. Likewise, Bondy, Matten and Moon (2008) find that codes of conduct are tools for complying with mandatory regulations, and that has become a widespread management practice which is not precisely related to CSR commitment. Mallin, Michelon and Raggi (2013), based on socio-political and agency theories, find that environmental disclosure differs from social disclosure in that the former helps to communicate outstanding environmental performance (singling) whereas the latter is a way for legitimation of poor performance. In other words, the higher the environmental performance the better the quality and extent of the information released, and the higher the social performance the poorer the quality and extent of social disclosure. Therefore, signalling these practices is important for corporations as it is a way to conceive reputation (Rao, 1994). Furthermore, firms can obtain a competitive advantage if signals emitted by an organization cannot be imitated by its peers (Spence, 1973). However, organizations with high quality performance

look to collaborate with others in the same level in order to maintain their reputation (Poldony, 1994). Being part of a collective effort, in this case the UNGC, helps to legitimize CSR actions and strengths corporate reputation, facts that are less likely to happen if firms work in isolation (Berliner and Prakash, 2014).

Therefore the first hypothesis is stated as follows:

H1: There is a positive relationship between CSP and the adoption of the UNGC.

3.2.3. Changes over time

The characteristics of adopters as well as their reasons to participate within a voluntary CSR initiative changes over time. First, we depart from the notion that leaders and laggards have different viewpoints to commit to new practices (Herremas et al., 2009; Liefferink et al. 2009; Runhaar et al. 2008). Then, we see how the diffusion of certain practices have different audiences along the time.

Referring to participation in new practices Herremans et al. (2009) analyse why a number of companies from the petroleum industry in Canada. They found that leaders wanted to improve their environmental performance to look good in front of their stakeholders whereas their peers (laggards) in the same country and industry prefer to remain the same. Based on competing logics, the authors find that the higher the pressure from stakeholders, the higher the impact on target companies to adopt environmental practices. Furthermore, they find that both institutional and firm level factors influence companies' decision about how to react to stakeholders demands even within the same industry; and, that for companies where the focus is on shareholders, environmental performance is not a concern. In the same line, Liefferink et al. (2009) indicate that there are three common political reasons to become a leader

in environmental policy: high pressures from stakeholders, competitive advantage, and future international legislation. In another study, Runhaar et al (2008) find that environmental leaders are not homogeneous as previous literature suggests but there exist differences among them. This fact is very intuitive when comparing large companies with small and medium enterprises (SMEs) as done in their study which also finds that large companies respond to stakeholder pressures whereas SME might be driven by owner's ideologies or as a competitive advantage. Arevalo et al., (2013) study early and late UNGC adopters in the Spanish context and found that internal and external forces are import drivers for the adoption of the initiative. Furthermore, their findings suggest that both early and late adopters are motivated by image and economic gains; however, economic gains desire is stronger in late adopters. Bansal and Hunter (2003) suggest two reasons for companies to adopt ISO 14001 as a first-mover. The first one is to reinforce their current practices and maintain their competitive advantage, and second, to reorient their practices and operations. Their findings suggest that reinforcing strategies (i.e. maintaining corporate legitimacy among others in the same field) is the clue to be an early adopter.

In a study carried out by Ramus and Montiel (2005), the authors find no difference between the reporting in four different industries; however, when they look at the implementation of environmental and social practices they find that those firms motivated by an economic aim tend to engage in real changes. They suggest that the symbolic adoption is a result of the institutional pressures listed by DiMaggio and Powell (1983).

Under the scope of Networking Theory, firms join to learn from member leaders of the initiative (Gilbert and Benham, 2013). Similarly, Tashman and Rivera (2010; p. 490) argue that *"[t]he network structure itself is a platform for mimetic*

behaviour where CSP laggards can learn from leaders". Furthermore, Chapple et al. (2001: p. 461) find that *"firms are more likely to invest in voluntary compliance the longer the accreditation scheme has been in existence"*; however, they say, there is no evidence of substantial commitment. This could be due to the fact that the firm's ESG performance has changed as a result of the diffusion of this type of practices and late adopters only seek to legitimize their practices by an institutionalized initiative and therefore, no change is observed (Tolbert and Zucker, 1983). Berliner and Prakash (2014) argue that the UNGC should attract '*average and poor performers'* in order to accomplish its goal. These arguments can be summarized as follows:

Based on these arguments, I hypothesize that:

H2: Characteristics of adopters (CSP) change over time

3.2.4. Controversial Actions

In many cases, the adoption of the UNGC has been considered as a symbolic practice in the literature, in comparison to the Global Reporting Initiative (GRI), which has been regarded as a substantial commitment to CSR (Pérez-Batres, et al., 2010; Pérez-Batres et al. 2012). However, academics have also identified how firms do use the GRI reports to change the perception of their practices by omitting negative aspects of their social performance leading to a symbolic disclosure (Hahn and Lulfs, 2013). Lyon and Maxwell (2011; p.5) define greenwashing as *"the selective disclosure of positive information about a company's environmental or social performance, while withholding negative information on these dimensions"*.

Mechanism for greenwashing has increased in the last years, this implies the commitment to reporting initiatives while upholding a poor performance (Delmas and Burbano, 2011). In so doing, encourages firms to misbehave by producing negative

externalities, or as some researcher will say: providing firms with licence to sin (Delmas and Burbano, 2011). On the other hand, firms which avoid to participate in controversial business get the benefit of competitive advantage which is translated into a positive effect in the market performance (Moura-Leite, Padgett and Galán, 2011). In a different study, Mahoney et al. (2013) find the firms issuing a standalone CSR report tend to be more transparent than those that do not.

There is a tendency on the critics to the UNGC to highlight how easily firms in the dirty industry can "bluewash" their corporate image; for instance the oil and gas, and the materials industries, are more likely to join the UNGC; this might be because companies in those industries are more susceptible to be involve in issues with the environment and human rights (Bennie, Bernhagen and Mitchell, 2007; Bernhagen and Mitchell, 2010). Although the purpose here is not to determine if companies are adopting the UNGC to 'symbolically' clear their reputation (it might be the case that a company was involved in a controversy but aims to change its behaviour), I instead, analyse whether the decision of becoming a member of the initiative is driven by controversies in their environmental, social, and/or corporate governance performance. As a result, the following hypothesis is suggested:

H3: Firms with ESG controversies are more likely to join the UNGC.

Figure 3.2 shows graphically the hypotheses established in this section.

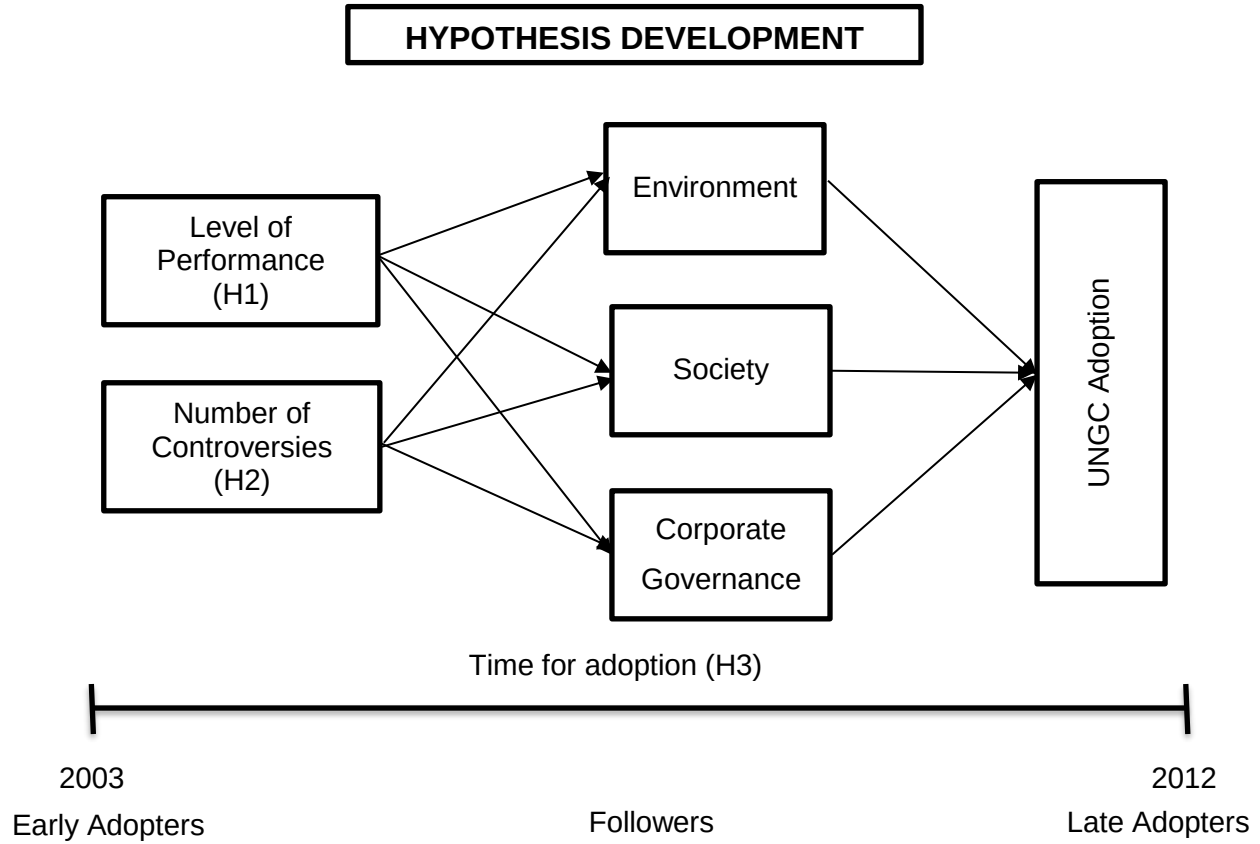


Figure 3.2 This figure graphically represents the hypotheses established in this paper. Hypothesis 1 (H1) suggests a relationship between corporate social performance, in its three dimensions: environment, society and corporate governance, and the adoption of the UNGC as a CSR strategy. Hypothesis 2 (H2) proposes that environmental, social and governance controversies contribute to the adoption of the initiative. Hypothesis 3 (H3) suggests that the level of CSP to decide to join the UNGC changes over time.

3.3. DATA AND METHODOLOGY

In order to understand what characteristics identify firms that have adopted the UNGC from those that have not (in terms of ESG disclosure), and how these characteristics change over time, I event history analysis[15].

3.3.1. Event History Analysis

Event History Analysis (EHA) is a statistical method used in several fields, for example in strategy, economics and medicine to associate the timing of an event to its explanatory variables. Roberts and Downling (2002) use this method to link superior financial performance to reputation. Wang (2012) employ EHA to study the reasons of some cities in California voluntary engage in environmental actions earlier than others and why some cities prefer not to do anything at all. EHA is a longitudinal dataset that differs from other statistical methods in that it only tracks subjects from the beginning of the study until the event happens to each subject or the subject disappears from the sample before the event is presented in which case it is said that the subject was censored (i.e. die); therefore no observations are disregarded (Allison, 2014). In this case, EHA is suitable because it measures the conditional probability of joining the UNGC in a one-year period based on the disclosure of environmental, social and corporate governance information.

As the data is grouped by years and we observe non-repeated events of a single type, discrete-time methods are the best option to carry out the analysis[16] (Allison, 2014). Baucus and Near (1991) employ this type of analysis to study the relationship between corporate antecedents (environmental, internal and situational) and corporate

[15]Event history analysis is also known as duration analysis and survival analysis.
[16] The other variant of survival analysis is the continuous-time method which is used in those cases where events happen at very specific points in time (i.e. day), therefore, providing an interval for the conditional probability of the event.

illegal behaviour; the authors decide to run a stepwise logistic regression, and split continuous variables within categorical to reduce the loss of information as suggested by Allison (1982). Sherer and Lee (2002) use EHA-discrete method by following a logistic regression model to investigate the adoption of innovative human resource practices by senior and staff attorneys in the principal offices of firms.

Furthermore, it is important to mention that although some data can be continuous (for instance, exact registration date in the UNGC), it will be treated as discrete (only the year of adoption will be considered). This decision will not affect the output as both approaches guide to analogous conclusions (Allison, 1982); even more, choosing the full date will produce an extensive sample. We must also assume that time of censoring is not related to the hazard rate of the event.

I develop the following maximum likelihood model based on logistic regression analysis to test my hypotheses:

$$log\left(\frac{P(it)}{1\text{-}P(it)}\right) = b_0 + b_1 ESGIndex_{(it-1)} + b_2 ESGContro_{(it-1)} + b_3 Employees_{(it-1)} +$$

$$b_4 MarketValue_{(it-1)} + b_5 Closely_{(it-1)} + b_6 DirtyInd + b_7 Leverage_{(it-1)} +$$

$$b_8 ROA_{(it-1)} + b_9 MarketEc$$

The dependent, P(*t*), is the conditional probability (hazard rate) that a firm (*i*) will join the UNGC at time *t*, given that the firm has not yet become a member, and given the characteristics of members at time *t*. This variable is coded '1' if the firm joined the UNGC in that year, and '0' otherwise. A firm is right-censored if it disappears from the sample or if it did not join the UNGC by the end of the study (random censoring). This could have happened because the company merged, split or simply decided not

to remain public anymore or because they did not meet the requirements of the FTSE AWI Index any longer. Therefore, the dataset contains one observation per year that the firm appears in the sample; and, an advantage of this type of analysis is that we do not need to correct for the dependence among the observations from the same firm (Allison, 1982; D'Angostino et al., 1990).

The ESG Index is a key explanatory variable for the average of environmental, social and corporate governance practices implemented by firm (*i*) at time *t-1* according to ASSET4. ASSET4 is a database that provides ESG data for over 5,000 firms from the most important and largest indices (MSCI, FTSE, S&P to name but a few); data is gathered from publicly available sources (i.e. firm websites, financial and non-financial reports, NGOs websites and news) and also from the Carbon Disclosure Project (i.e. CO_2 data). Then, the data is classified into three pillars denominated: environmental performance, social performance, and corporate governance performance. The three pillars contain 15 categories obtained from 180 key performance indicators from 500 individual data points. While some information is updated daily (i.e. news), some other data is updated every year (i.e. annual reports). The data from each company is compared with the dataset universe (benchmark), and standardised (z-score) creating scores between 0 to 100% (Thomson Reuters, 2015)[17]. Furthermore, the model also test the impact of environmental, social and corporate governance controversies on the adoption of the UNGC; these controversies are represented in the model by *ESGContro*. Each type of controversy reported by Asset4 is considered as a variable.

[17] In previous versions of the ASSET4 database, Thomson Reuters also considered the Economic Pillar; however, this pillar is still available to download. I do not use this information because it contains information related to client and shareholders loyalty and financial performance.

I control for firm characteristics[18] that are constant over time (e.g. region and industry) and for those that change over time (e.g. size, ROA and leverage). Consistent with previous literature, size is measured by the natural logarithm of the number of *Employees* and the natural logarithm of *Market Value. Closely held shares* are considered as these investors tend to avoid investments in corporate social responsibility practices. As leverage measure I employ debt to capital ratio and firm profitability is represented by returns on assets ratio. The FTSE database provides country and industry variables; the former refers to the country where the firm is listed and the latter can be one of the ten categories defined by the index. I use this information to create two variables: *dirty industries*, includes oil and gas, basic materials and industrials; and, *region*, Asia and Pacific, Europe, Canada and US, and rest of the world. Region substitutes the variable 'Market Economy'. *Market Economy* is considered to control for the impact that liberal and coordinated market economies have on corporate social responsibility which has been widely documented. A description and source of the variables can be found in Table 3.2.

So far, this model only shows changes in the hazard over time as a result of the changes in the time-varying explanatory variables. However, we can also test if changes are autonomous and depend on time only:

$$log\left(\frac{P(it)}{1\text{-}P(it)}\right) = b_0 + b_1 ESGIndex_{(it-1)} + b_2 ESGContro_{(it-1)} + b_3 Employees_{(it-1)} +$$

$$b_4 MarketValue_{(it-1)} + b_5 Closely_{(it-1)} + b_6 DirtyInd + b_7 Leverage_{(it-1)} +$$

$$b_8 ROA_{(it-1)} + b_9 MarketEc + b_{10} t + b_{10} t^2$$

[18] Those variables with a skewed distribution were transformed into natural logarithmic values, no negative values were reported and 'zero' values were omitted.

Discrete-time methods also require us to deal with those cases that show 'delayed entry' or 'left truncation'[19]. Firms are at risk[20] to join the UNGC before the start of our study, t>0 (i.e. year 2000 as this is the year when the initiative was launched) and therefore, the data is said to be left truncated.

[19] '*Left censoring'* is different from *'left truncation*' in that the former applies when we do not know when the event occurred; and, the latter refers to the information that is omitted as a result of the research design.
[20] Being at risk should be understood as the possibility to have the event and not with a negative connotation.

Table 3.2

Variables Description

Category	Measure	Measurement	Source
Dep. Variable	UNGC Membership	Dummy variable equivalent to '1' if the firm is member of the UNGC in a given year and '0' otherwise.	https://www.unglobalcompact.org/what-is-gc/participants
Independent Variables	ESG Index	Average of the environmental, social and corporate governance scores (lagged one year).	Own - based on Ioannou and Serafeim (2012)
	Environmental Score	The environmental pillar measures a company's impact on living and non-living natural systems, including the air, land and water, as well as complete ecosystems. It reflects how well a company uses best management practices to avoid environmental risks and capitalize on environmental opportunities in order to generate long term shareholder value (lagged one year).	ASSET4
	Social Score	The social pillar measures a company's capacity to generate trust and loyalty with its workforce, customers and society, through its use of best management practices. It is a reflection of the company's reputation and the health of its license to operate, which are key factors in determining its ability to generate long term shareholder value (lagged one year).	ASSET4
	CG Score	The corporate governance pillar measures a company's systems and processes, which ensure that its board members and executives act in the best interests of its long term shareholders. It reflects a company's capacity, through its use of best management practices, to direct and control its rights and responsibilities through the creation of incentives, as well as checks and balances in order to generate long term shareholder value (lagged one year).	ASSET4
	Total Env Controversies	Total of the environmental controversies per year at firm level (lagged one year).	ASSET4
	Total Soc Controversies	Total of the social controversies per year at firm level (lagged one year).	ASSET4
	Total CG Controversies	Total of the corporate governance controversies per year at firm level (lagged one year).	ASSET4

Table 3.2 (cont.)

Variables Description

Category	Measure	Measurement	Source
Control Variables	Employees (ln)	It includes all full and part-time employees of the company (lagged one year).	Worldscope
	Market Value (ln)	Market value on Datastream is the share price multiplied by the number of ordinary shares in issue. The amount in issue is updated whenever new tranches of stock are issued or after a capital change USD (lagged one year).	Datastream
	Closely held shares (ln)	Represents shares held by insiders, includes: cross holdings, corporations, holding company, government, employees and individuals (lagged one year).	Worldscope
	Dirty Industries	Oil and Gas; Basic Materials; Industrials	Own - based on FTSE
	Leverage	Total Debt to Capital (long term debt + short term debt and current portion of long term debt/total capital +short term debt and current portion of long-term debt *100) (lagged one year).	Worldscope
	ROA	((Trailing 12 Months Net Profit + (Trailing 12 Months Interest Expense On Debt * (1-Tax Rate / 100)))) / Average of Last Year's and Current Year's Total Assets * 100*(1-Tax Rate)))/Average of Last Year's and Current Year's Total Assets * 100 (lagged one year).	Worldscope
	Market Economy	Dummy variable indicating '1' if the country has a Liberal Economy and '0' if Coordinated.	Own - based on Mackenzie and Rees (2012); Hall and Soskice (2001).
	Region - Asia and Pacific	Japan, Hong-Kong, Australia, China, Korea, New Zealand, Russia, Thailand, India, Turkey, Malaysia, Indonesia, Philippines.	Own - based on geographical location
	Region - Europe	Italy, Greece, Austria, Sweden, France, Germany, Denmark, UK, Switzerland, Netherlands, Belgium, Finland, Portugal, Norway, Spain, Ireland, Poland, Czech Republic, Hungary	Own - based on geographical location

Table 3.2. (cont.)
Variables Description

Category	Measure	Measurement	Source
Control Variables	Region - Canada and US	Canada and US	Own - based on geographical location
	Region - Other	Mexico, Israel, Argentina, Brazil, Chile, Morocco, Egypt, South Africa, Peru, Colombia, UAE	Own - based on geographical location

3.3.2. Sample and Descriptive Statistics

The sample comprises the firms in the FTSE all world index[21] and covers the period 2003-2012. ASSET4 started reporting in 2002 and because the ESG index and related variables are lagged one year, the study starts in 2003 and continues up to the most recent year of information available at the moment of the collection (2011)[22] obtaining a panel of 12,724 firm-year observations for 2,614 firms. I focus on public firms for three reasons: first, the data to determine a proxy in large scale for ESG disclosure is only available for this segment of participants; second, these firms are the most visible to stakeholders; and, third, these type of ratings are mainly used by investors, therefore it is not unusual to combine the data from ASSET4 with the data from the FTSE index.

Table 3.3 shows correlations for the full sample. As expected, there is a high and positive correlation between the ESG Index and its three components: environmental, social and governance scores; there is also a high and positive correlation between environmental and social scores. Correlations among the other variables show no problems with multicollinearity. Table 3.4 shows the number of firms by country and by industry. It can be seen that the 2,614 firms are located in 46

[21] Except for those located in Taiwan, as there exists a political conflict between Taiwan and China, and the former is not recognized by the United Nations.
[22] In addition, on March, 2013 the UNGC announced an annual fee, applicable from January, 2014, which might have impact on the membership.

countries and 10 industries; the USA has the largest number followed by Japan, the UK and Australia. Regarding the type of industry, the largest number of firm within the sample belong to the financial industry, followed by industrials and consumer services and goods.

From Figure 3.3 we can observe the changes in the trend for environmental and social scores for the period 2003-2012. Environmental and social scores follow similar patterns. For members in the early years the social score is slightly higher than the environmental score and by the end of the period of study, the environmental score is higher than the social score. Both scores are in the range of 60%-80%. Environmental and social scores for non-members and the average are close to 50% over the ten years.

Figure 3.4 shows the trends for corporate governance scores and for the average of the three dimensions. Contrary to the environmental and social scores, the governance score for members was lower than the average in the four first years of the initiative. Subsequently, the scores for members and non-members were close to 50%. The ESG score shows a trend similar to the social score but with lower values for members.

TABLE 3.3

Correlation Matrices and Descriptive Statistics (Full Sample)

	Variable	1	2	3	4	5	6	7	8	9	10	11	12
1	ESG Index	1.0000											
2	EnvScore	0.7997***	1.0000										
3	Number of Env Controversies	0.1582***	0.1088***	1.0000									
4	SocScore	0.8795***	0.7254***	0.1157***	1.0000								
5	Number of Soc Controversies	0.2276***	0.1793***	0.2213***	0.1558***	1.0000							
6	CGScore	0.6382***	0.1326***	0.1403***	0.3276***	0.1893***	1.0000						
7	Number of CG Controversies	0.0785***	0.0455***	0.1082***	0.0490***	0.3342***	0.0860***	1.0000					
8	Employees (ln)	0.4903***	0.1338***	0.1221***	0.3273***	0.2410***	0.6660***	0.1157***	1.0000				
9	Market Value (ln)	0.4328***	0.2817***	0.1888***	0.3811***	0.3402***	0.3395***	0.1286***	0.4317***	1.0000			
10	Leverage	0.2040***	0.0417**	0.0209	0.1209***	0.0590***	0.3052***	0.0512***	0.3500***	0.1078***	1.0000		
11	ROA	0.1796***	-0.0067	0.0579***	0.1015***	0.0680***	0.3162***	0.0045	0.3309***	0.2008***	0.0634***	1.0000	
12	Closely Held Shares (ln)	0.0635***	-0.0821***	0.0112	0.0660***	0.0369**	0.1628***	0.0228	0.4393***	0.1257***	0.1393***	0.1492***	1.0000
	N	12,724	12,724	12,724	12,724	12,724	12,724	12,724	11,276	12,110	12,042	11,955	11,656
	Mean	49.63	49.73	0.07	49.64	0.52	49.52	0.04	8.09	8.83	0.28	0.05	9.28
	Std. Dev.	24.34	31.75	0.45	30.25	1.92	31.96	0.26	2.64	1.10	0.47	0.08	2.65
	Min	4.95	8.61	0.00	3.43	0.00	1.24	0.00	0.00	-1.97	-19.73	-1.52	0.00
	Max	97.56	97.32	11.00	98.87	57.00	98.75	6.00	14.60	13.15	16.69	1.19	19.50

The table shows the correlation for 10,864 observations from 2003-2012. ***p<0.001; **p<0.01; *p<0.05; +p<0.10. This table also shows the descriptive statistics for all numeric variables.

TABLE 3.4

Sample Description

Panel 1. Distribution by country

Country	Firms	Num Obs	Percentage	ESG Index	EnvScore	SocScore	CGScore	Env Contro	Soc Contro	CG Contro	Employees (ln)	MV (ln)	Leverage	ROA	Closely (ln)
ARGENTINA	1	5	0.04	50.78	78.99	60.25	13.08	0.00	0.00	0.00	10.21	9.61	0.41	0.24	13.77
AUSTRALIA	127	617	4.85	55.11	50.52	48.65	66.15	0.05	0.21	0.07	8.44	8.30	0.33	0.06	11.21
BELGIC	17	94	0.74	53.28	60.66	54.26	44.92	0.00	0.27	0.00	9.25	8.75	0.41	0.11	11.01
BRAZIL	45	103	0.81	38.37	42.99	54.35	17.78	0.08	0.08	0.01	8.52	8.67	0.24	0.05	11.91
CANADA	80	405	3.18	62.37	54.85	56.76	75.48	0.14	0.37	0.04	9.22	9.33	0.35	0.05	8.79
CHILE	11	36	0.28	34.66	44.97	49.32	9.70	0.06	0.03	0.00	3.08	9.03	0.00	0.00	8.18
CHINA	89	247	1.94	28.87	31.64	30.54	24.44	0.06	0.15	0.00	8.39	8.36	0.06	0.01	13.13
COLOMBIA	2	3	0.02	21.12	25.01	28.85	9.49	0.00	0.00	0.00	2.71	8.12	0.00	0.00	4.40
CZECH REPUBLIC	4	13	0.1	47.24	51.66	72.78	17.29	0.08	0.31	0.00	6.59	9.37	0.02	0.00	8.82
DENMARK	12	50	0.39	33.73	46.18	38.57	16.43	0.02	0.10	0.00	7.68	8.28	0.07	0.02	8.34
EGYPT	8	18	0.14	15.02	16.58	22.60	5.88	0.00	0.06	0.00	6.58	7.63	0.05	0.01	11.17
FINLAND	13	61	0.48	62.81	71.97	62.99	53.47	0.03	0.08	0.00	9.64	8.52	0.44	0.09	11.26
FRANCE	60	220	1.73	61.27	70.07	70.36	43.39	0.04	0.33	0.02	9.86	8.93	0.23	0.08	11.10
GERMANY	53	216	1.7	51.48	66.95	61.06	26.42	0.03	0.33	0.04	10.40	8.84	0.56	0.06	11.10
GRECE	15	52	0.41	39.75	51.29	54.71	13.24	0.06	0.12	0.00	8.75	8.24	0.55	0.15	12.13
HONG KONG	107	477	3.75	33.32	33.15	35.78	28.01	0.01	0.08	0.00	7.03	8.69	0.04	0.01	11.94
HUNGARY	1	4	0.03	65.99	83.53	89.75	24.68	0.00	0.00	0.00	5.03	8.60	0.00	0.00	5.53
INDIA	49	102	0.8	38.08	42.63	51.53	20.10	0.02	0.36	0.02	5.34	8.77	0.01	0.00	9.12
INDONESIA	19	48	0.38	38.40	36.01	55.77	23.43	0.00	0.00	0.00	0.88	8.82	0.00	0.00	6.38
IRELAND	7	45	0.35	53.10	49.82	48.35	61.12	0.00	0.64	0.04	9.67	8.66	0.92	0.04	9.85

TABLE 3.4 (Continued)
Sample Description

Panel 1. Distribution by country

Country	Firms	Num Obs	Percentage	ESG Index	EnvScore	SocScore	CGScore	Env Contro	Soc Contro	CG Contro	Employees (ln)	MV (ln)	Leverage	ROA	Closely (ln)
ISRAEL	13	39	0.31	34.60	35.08	37.99	30.74	0.00	0.64	0.00	7.73	8.60	0.13	0.03	9.55
ITALY	44	215	1.69	49.63	50.38	63.60	34.90	0.00	0.27	0.02	9.67	8.74	0.69	0.06	12.81
JAPAN	423	2,505	19.69	37.12	58.08	42.40	10.88	0.01	0.19	0.00	4.69	8.45	0.00	0.00	6.86
KOREA	77	196	1.54	41.54	58.92	51.29	14.42	0.03	0.49	0.04	1.62	8.72	0.00	0.00	2.80
MALASIA	36	86	0.68	40.95	36.10	45.87	40.88	0.03	0.07	0.00	8.03	8.70	0.12	0.02	12.46
MOROCCO	3	9	0.07	26.74	24.32	52.41	3.50	0.00	0.11	0.00	7.10	9.02	0.05	0.01	10.51
MEXICO	20	62	0.49	27.81	34.98	37.26	11.18	0.05	0.31	0.02	7.48	9.04	0.03	0.01	12.03
NETHERLANDS	28	99	0.78	73.37	68.19	81.19	70.72	0.11	0.48	0.02	10.43	9.35	0.59	0.12	10.37
NORWAY	11	22	0.17	40.61	44.39	45.36	32.09	0.05	0.09	0.00	7.17	8.20	0.21	0.03	10.38
NEW ZEALAND	8	57	0.45	46.98	42.21	43.33	55.41	0.02	0.09	0.00	7.71	7.58	0.31	0.07	11.63
AUSTRIA	18	67	0.53	40.95	47.19	50.42	25.26	0.01	0.04	0.00	9.17	8.47	0.70	0.05	11.65
PERU	2	4	0.03	24.13	24.82	22.99	24.58	0.00	0.00	0.00	8.32	8.68	0.17	0.03	9.83
PHILIPPINES	13	27	0.21	35.50	37.21	41.81	27.48	0.00	0.04	0.00	5.25	8.47	0.01	0.00	9.81
POLAND	11	27	0.21	28.20	29.04	39.61	15.96	0.00	0.00	0.00	8.39	8.58	0.11	0.02	10.77
PORTUGAL	10	40	0.31	48.60	48.89	63.71	33.21	0.00	0.00	0.00	8.94	8.39	0.87	0.06	13.27
RUSSIA	30	77	0.61	43.21	46.92	57.23	25.47	0.14	0.29	0.03	7.57	9.52	0.01	0.00	11.42

TABLE 3.4 (Continued)

Sample Description

Panel 1. Distribution by country

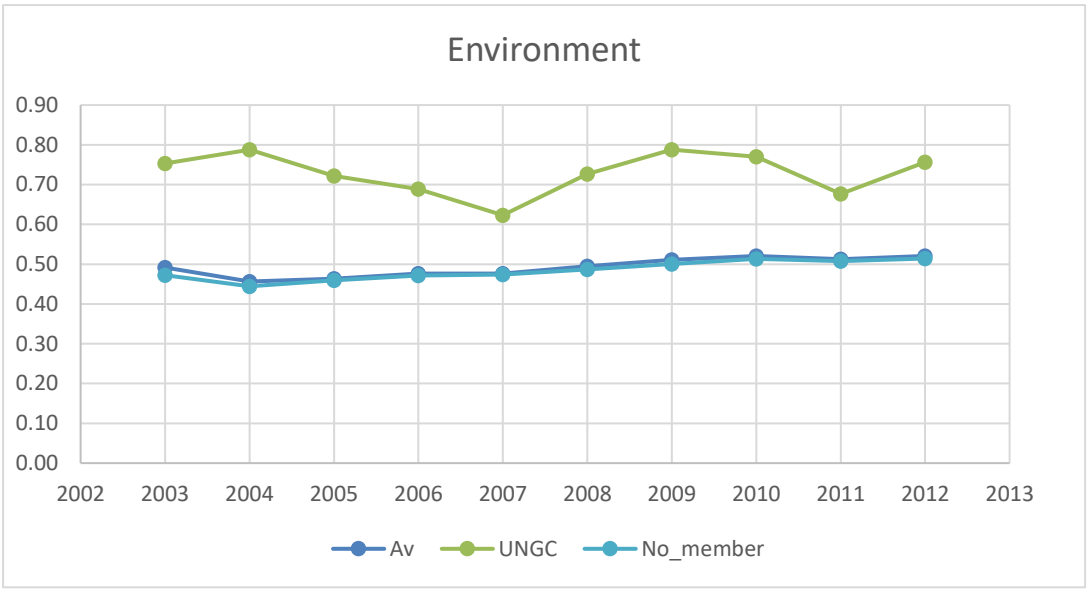
Country	Firms	Num Obs	Percentage	ESG Index	EnvScore	SocScore	CGScore	Env Contro	Soc Contro	CG Contro	Employees (ln)	MV (ln)	Leverage	ROA	Closely (ln)
SOUTH AFRICA	44	91	0.72	61.86	57.56	74.39	53.62	0.02	0.23	0.00	7.68	8.47	0.03	0.02	9.53
SINGAPORE	45	243	1.91	34.56	32.61	33.34	37.73	0.01	0.09	0.01	8.51	8.04	0.22	0.06	12.84
SPAIN	26	94	0.74	49.14	57.50	57.17	32.75	0.00	0.09	0.01	8.60	8.63	0.67	0.13	12.02
SWEDEN	28	117	0.92	57.80	60.17	64.15	49.07	0.03	0.09	0.01	7.12	8.64	0.06	0.01	8.79
SWITZERLAND	41	185	1.45	55.63	59.57	60.67	46.65	0.07	0.58	0.03	9.29	8.85	0.29	0.07	8.34
THAILAND	15	41	0.32	46.56	45.31	51.54	42.83	0.10	0.05	0.00	5.74	8.96	0.01	0.00	10.56
TURKEY	18	52	0.41	32.66	39.81	46.51	11.66	0.00	0.10	0.00	9.07	8.50	0.27	0.05	13.20
UAE	1	2	0.02	42.46	37.07	36.05	54.27	0.00	0.00	0.00	9.01	9.12	0.13	0.01	12.11
UK	151	695	5.46	74.73	72.08	76.37	75.73	0.15	0.85	0.06	10.05	8.61	0.74	0.12	10.31
USA	778	4,856	38.16	55.00	42.93	48.00	74.07	0.13	0.92	0.08	9.63	9.21	0.40	0.07	9.19
Total	**2,614**	**12,724**	**100**	**44.24**	**47.84**	**51.56**	**33.25**	**0.04**	**0.21**	**0.01**	**7.64**	**8.68**	**0.25**	**0.04**	**10.27**

TABLE 3.4 (Continued)
Sample Description

Panel 2. Distribution by industry

Industry	Firms	Num Obs	Cum.	ESG Index	EnvScore	SocScore	CGScore	Env Contro	Soc Contro	CG Contro	Employees (ln)	MV (ln)	Leverage	ROA	Closely (ln)
Oil & Gas	148	691	5.43	56.11	53.03	53.91	61.40	0.52	0.64	0.05	8.19	9.32	0.25	0.07	9.50
Basic Materials	246	1,035	8.13	56.26	64.80	58.88	45.11	0.16	0.39	0.03	7.32	8.55	0.19	0.04	8.90
Industrials	449	2,115	16.62	51.72	58.38	51.48	45.31	0.08	0.37	0.02	8.18	8.61	0.24	0.04	8.77
Consumer Goods	299	1,495	11.75	50.49	56.80	52.75	41.93	0.04	0.61	0.02	7.93	8.69	0.25	0.05	8.94
Healthcare	161	839	6.59	50.68	43.76	51.00	57.27	0.00	0.81	0.06	8.34	9.03	0.25	0.07	8.87
Consumer Services	350	1,806	14.19	45.08	39.81	44.66	50.76	0.02	0.64	0.05	8.94	8.70	0.33	0.07	9.78
Telecommunications	90	397	3.12	51.19	49.83	56.30	47.44	0.01	0.68	0.03	8.63	9.41	0.33	0.05	10.70
Utilities	129	677	5.32	61.55	66.69	60.32	57.66	0.17	0.27	0.04	8.03	9.01	0.40	0.03	8.90
Financials	592	2,846	22.37	42.21	36.99	41.37	48.27	0.01	0.39	0.05	7.70	8.93	0.36	0.03	9.73
Technology	150	823	6.47	52.93	50.87	50.21	57.73	0.02	0.82	0.06	8.07	8.98	0.15	0.06	9.05
Total	**2,614**	**12,724**	**100**	**51.82**	**52.10**	**52.09**	**51.29**	**0.10**	**0.56**	**0.04**	**8.13**	**8.92**	**0.27**	**0.05**	**9.31**

The sample comprises 2,614 firms from 46 countries and 10 industries.



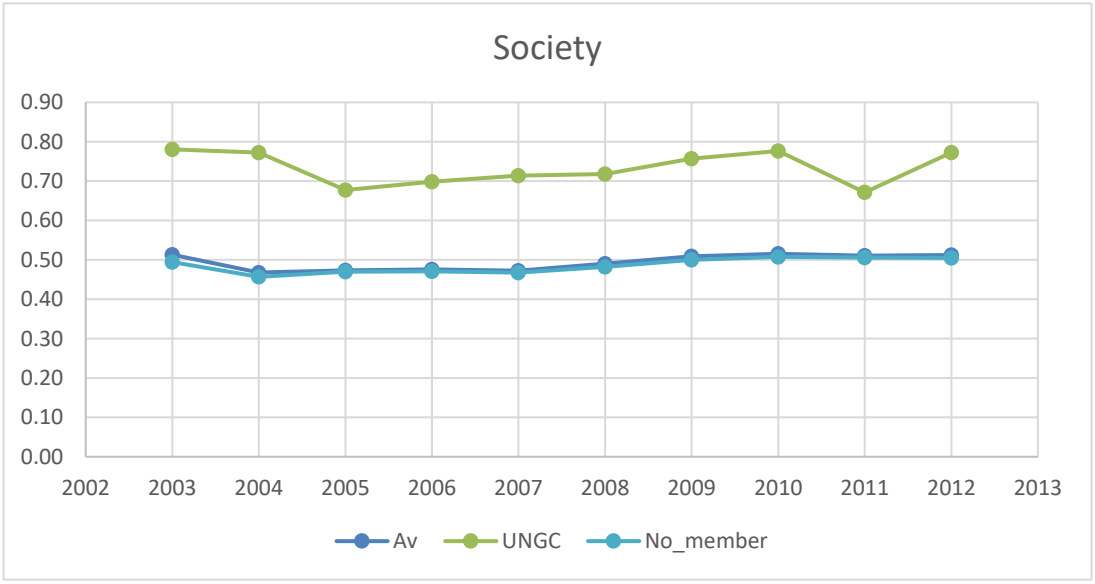


Figure 3.3 These figures show the trends from 2003 to 2012 for environmental and social scores as measured by ASSET4 for all the firms in the sample for each year. Scores go from 0 to 100% and are lagged by one year. As we can observe, environmental and social trends are quite similar. In the case of members, environmental scores fluctuated between a range of 60%-80% whereas the social score vary from approximately 65% to 80%. On the other hand, non-members and the average score remain almost steady over the ten years in approximately 50%.

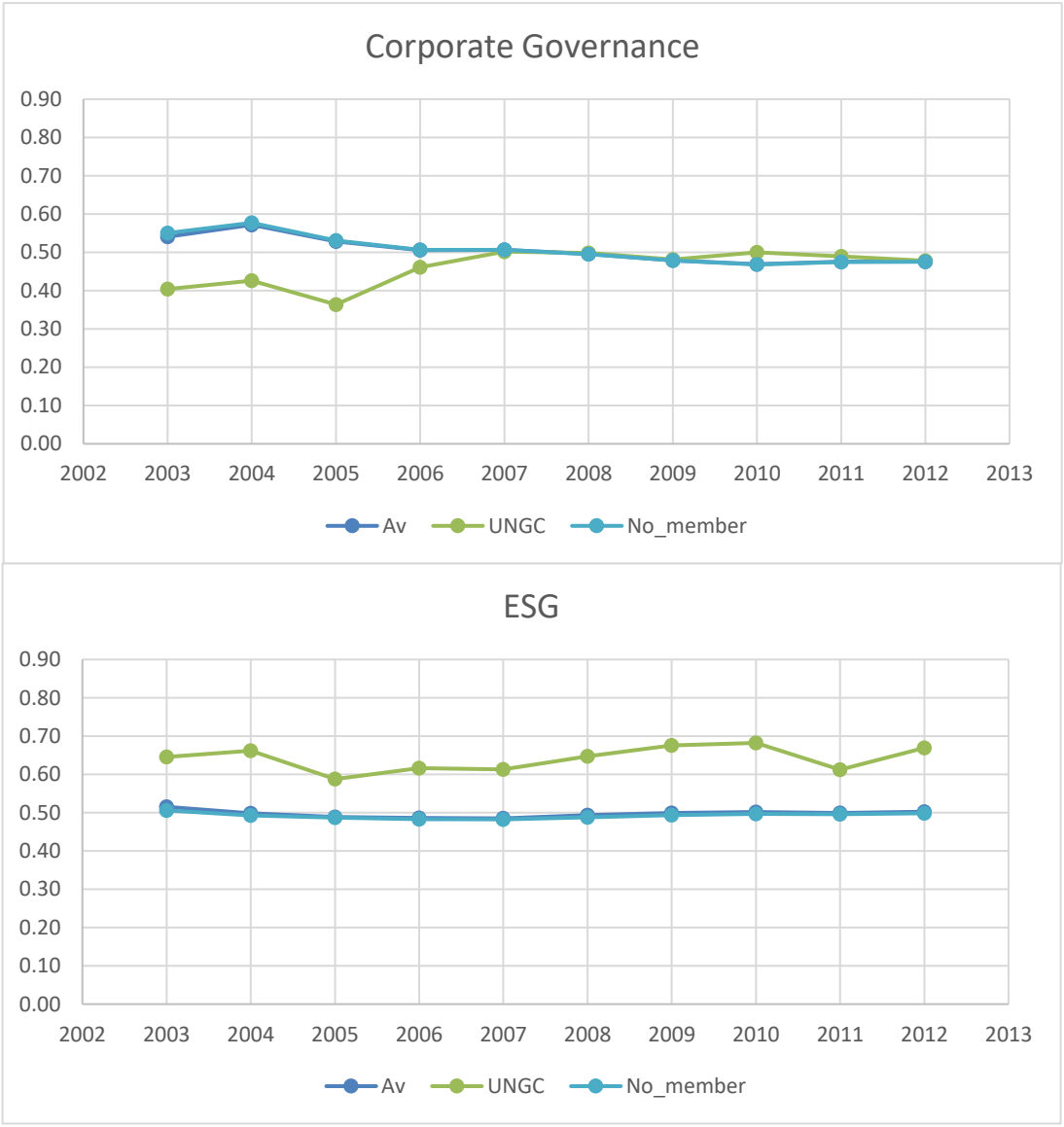


Figure 3.4. These figures show the trends from 2003 to 2012 for corporate governance scores and ESG on average. Both dimensions are lagged by one year and values can go from 0 to 100%. The governance score is provided by ASSET4.The ESG score is the average of the environmental, social and governance scores. As we can observe, the governance score is lower for members than for non-members over the first four years. Then, it remains almost the same for both groups. The average of the three categories is also higher for members than for no members and with a pattern similar to the environmental score but a smaller gap between both groups.

3.4. RESULTS

This section presents the results obtained from the EHA. I discuss the implication of these results in relation with the research question that I established at the beginning of the chapter.

3.4.1. ESG Practices as a Driver for UNGC Adoption (H1)

Table 3.5 shows the results for the full sample. In general, the ESG score show to be significant and positively related to the adoption of the UNGC. The social score has the largest impact of the three dimensions, followed by the environmental and governance scores, which are also less significant. When different geographical regions are considered instead of market economy, the governance score is negative. Therefore H1 is supported.

3.4.2. Members ESG changes over time (H2)

To test changes over time, I split the sample in three groups as homogenous as possible in terms of number of years. I needed these groups to be large enough to identify changes in ESG scores but not too small so I could not be able to identify subtle changes. The sample is therefore split in three subsamples: Group 1 firms listed from 2003-2005; Group 2, firms listed from 2006-2009; and, Group 3, firms from 2010-2012 (see Table 3.6). Table 3.7 presents the binary and categorical variables for the full sample and also for each of the three categories or groups. We can observed that firms in the dirty industry have smoothly increased while the number of firms in liberal economies has decreased by approximately 15%. The number of firms located in Europe and USA and Canada has decreased over the years by 12% and 20% respectively, whereas Asia and Pacific has sharply increased from 18.36% to 45.22%

and firms in the rest of the world in the sample increased by 5.75%. Finally, Tables 3.8, 3.9 and 3.10 show the correlations and descriptive statistics for the three groups. The total number of observations used in Group 1 is 1,905; in the Group 2 is 4,567 and in Group 3 is 4,392. All the correlations follow a similar pattern to the full sample. However, we can observed that correlations between environmental, social and governance scores became stronger over time.

Table 3.11 shows the results for Group 1. We can observe that the impact of ESG on the adoption of the UNGC is significant but smaller than in the general model. The table also shows that at the beginning of the initiative only the social score was important to decide the CSR strategy. The number of employees is highly significant in all the models for this group.

Table 3.12 presents results for Group 2, these show positive relationship between ESG and the UNGC. In this case, the social score is slightly larger than for early adopters and more significant. In addition, the governance score has a marginal impact when the market economy is included but not when is substituted by the geographical region. Size is marginally significant.

Results for Group 3 are reported in Table 3.13 and show a stronger and significant relationship between the ESG and the UNGC. This relationship is even stronger than in the general model. Social score is the strongest of the three, followed by the environmental score. The governance score is marginally significant when the market economy is included. Size is somewhat significant.

Hypothesis 2 is also supported. The three subsamples show differences in their CSP characteristics in order to adopt the UNGC.

3.4.3. Controversial Actions (H3)

Contrary to my expectations, environmental, social and governance controversies are not an incentive to become member of the UNGC (Table 3.5). I consider the existence of controversies for the three subsamples but they were non-significant in any case.

Market economy is significant and negatively related to the adoption of the UNGC. Size measured by the number of employees is significant; however, all other control variables are non-significant. Industry and leverage are marginally significant when the geographical regions are considered. Whereas ROA is negative and significant. Interesting enough is that there is not significant impact from European firms in the adoption of the Ten Principles.

Hypothesis 3 is not supported, the existence of controversies is not related to the adoption of the UNGC.

Table 3.5

Testing ESG Performance on the Adoption of the UNGC (Full Sample)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
ESG Index	0.037***		0.037***		0.030***		0.030***	
Environmental Score		0.007*		0.007*		0.010**		0.010**
Social Score		0.021***		0.021***		0.021***		0.021***
CG Score		0.006+		0.006+		-0.005+		-0.005+
Total Env Contro			-0.025	-0.019			-0.123	-0.081
Total Soc Contro			0.002	0.011			0.009	0.018
Total CG Contro			-0.286	-0.306			-0.461	-0.480
Employees	0.083*	0.097**	0.083*	0.097**	-0.032	0.018	-0.030	0.018
Market Value	0.006	-0.011	0.012	-0.010	0.149*	0.079	0.165*	0.086
Closely held shares	-0.001	-0.002	-0.001	-0.002	0.000	-0.003	0.000	-0.003
Dirty Industry	0.049	0.073	0.052	0.076	0.215+	0.158	0.237+	0.171
Leverage	0.000	0.000	0.000	0.000	-0.001+	-0.001	-0.001+	-0.001
ROA	-0.005	-0.003	-0.005	-0.004	-0.019**	-0.015*	-0.020**	-0.016*
Market Economy	-2.198***	-1.991***	-2.182***	-1.974***				
Region - Asia & Pacific					-0.868**	-0.813**	-0.867**	-0.817**
Region - Europe					-0.112	0.084	-0.102	0.089
Region - Canada & US					-2.235***	-1.581***	-2.216***	-1.571***
Intercept	-5.503***	-5.509***	-5.556***	-5.521***	-5.284***	-5.294***	-5.445***	-5.362***
Log likelihood	-1154.143	-1150.029	-1153.726	-1149.588	-1180.928	-1163.044	-1179.284	-1161.726
#Obs.	10,872	10,872	10,872	10,872	10,872	10,872	10,872	10,872

+ p<0.1, * p<0.05, **p<0.01, *** p<0.001

Rest of the world is used as a base for region

Table 3.6

Distribution of Year-Membership

Adoption	Year	Joined	Did not join	Total number of firms
Group 1	2003	35	490	525
	2004	20	551	571
	2005	15	1,035	1,050
Group 2	2006	30	1,300	1,330
	2007	26	1,314	1,340
	2008	46	1,350	1,396
	2009	50	1,413	1,463
Group 3	2010	43	1,471	1,514
	2011	49	1,708	1,757
	2012	44	1,734	1,778
	Total	358	12,366	12,724

This table shows the number of firms that decided to adopt/not to adopt the UNGC during the period 2003-2012 (358 out of 2,614). Firms are tracked from 2003 until the moment they adopt the initiative. Those firms that did not join over the 10-years period appear in each year. The sample is divided in Group1 (2003-2005), Group 2(2006-2009) and Group 3 (2010-2012).

TABLE 3.7

Comparison of Binary and Categorical Variables

	Full Sample (n = 12,724)		Group 1 (n = 2,146)		Group 2 (n = 5,529)		Group 3 (n = 5,049)	
Dirty Industry	3,841	30.19%	575	26.79%	1,628	29.44%	1,638	32.44%
Other industries	8,883	69.81%	1,571	73.21%	3,901	70.56%	3,411	67.56%
Chi2=25.3516, p<0.001								
Liberal Economies	7,572	59.51%	1,482	69.06%	3,344	60.48%	2,746	54.39%
Coordinated Economies	5,152	40.49%	664	30.94%	2,185	39.52%	2,303	45.61%
Chi2=138.3622, p<0.001								
Asia & Pacific	4,775	37.53%	394	18.36%	2,098	37.95%	2,283	45.22%
Europe	2,316	18.20%	554	25.82%	1,048	18.95%	714	14.14%
USA & Canada	5,261	41.35%	1,191	55.50%	2,325	42.05%	1,745	34.56%
Rest of the world	372	2.92%	7	0.33%	58	1.05%	307	6.08%
Chi2=854.6162, p<0.001								

This table shows the distribution of companies participating in the study at different points in time: Group 1 (n=2,146), Group 2 (n=5,529) and Group 3 (n=5,049). Percentages of firms in the dirty industry has increased over time, contrary to firms based on countries with liberal economies which has decreased. Regarding the region where fims are located, the number of firms from Europe and USA & Canada regions has decreased while more companies from Asia & Pacific and from the rest of the worls has increased over the years. The significance of the differences is estimated using the Chi2 test.

TABLE 3.8

Correlation Matrices and Descriptive Statistics (Group 1)

	Variable	1	2	3	4	5	6	7	8	9	10	11	12
1	ESG Index	1.0000											
2	EnvScore	0.7476***	1.0000										
3	Number of Env Controversies	0.1297***	0.0912**	1.0000									
4	SocScore	0.8459***	0.6342***	0.1097***	1.0000								
5	Number of Soc Controversies	0.1748***	0.0987**	0.1128***	0.1496***	1.0000							
6	CGScore	0.5138***	-0.0675	0.0726	0.1538***	0.1207***	1.0000						
7	Number of CG Controversies	0.0176	0.0032	0.0485	0.0176	0.1276***	0.0166	1.0000					
8	Employees (ln)	0.4178***	0.0563	0.0871*	0.3160***	0.1548***	0.5126***	0.0699	1.0000				
9	Market Value (ln)	0.3944***	0.2223***	0.0796*	0.3714***	0.2459***	0.2397***	0.1131***	0.3820***	1.0000			
10	Leverage	0.2371***	0.0442	-0.0079	0.1713***	-0.015	0.2862***	0.0564	0.4564***	0.0774+	1.0000		
11	ROA	0.0966**	-0.0561	0.0296	0.0679	0.0284	0.1941***	-0.0240	0.1858***	0.1074***	0.0079	1.0000	
12	Closely Held Shares (ln)	-0.0197	-0.0972**	-0.0035	0.0874*	0.0317	-0.028	-0.0050	0.2976***	0.0499	0.1568***	0.0892**	1.0000
	Obs	2,146	2,146	2,146	2,146	2,146	2,146	2,146	1,980	2,029	2,007	1,986	1,951
	Mean	49.77	46.83	0.04	48.15	0.37	54.33	0.04	9.00	8.98	0.37	0.05	9.54
	Std. Dev.	22.93	31.74	0.29	30.70	1.18	31.01	0.24	2.16	1.17	0.33	0.08	2.36
	Min	8.68	11.94	0.00	5.51	0.00	1.32	0.00	1.61	-0.89	0.00	-0.80	0.00
	Max	97.56	97.32	4.00	98.73	23.00	98.75	4.00	14.35	12.86	4.38	0.48	16.77

The table shows the correlation for 1,905 observations from 2003-2005. ***p<0.001; **p<0.01; *p<0.05; +p<0.10. This table also shows the descriptive statistics for all numeric variables.

TABLE 3.9

Correlation Matrices and Descriptive Statistics (Group 2)

	Variable	1	2	3	4	5	6	7	8	9	10	11	12
1	ESG Index	1.0000											
2	EnvScore	0.7798***	1.0000										
3	Number of Env Controversies	0.1584***	0.1114***	1.0000									
4	SocScore	0.8823***	0.7084***	0.1120**	1.0000								
5	Number of Soc Controversies	0.2534***	0.1995***	0.2590***	0.1801***	1.0000							
6	CGScore	0.6242***	0.0801***	0.1364***	0.3256***	0.1966***	1.0000						
7	Number of CG Controversies	0.0919***	0.0497	0.1437***	0.0788***	0.2516***	0.0811***	1.0000					
8	Employees (ln)	0.5427***	0.1321***	0.1215***	0.3711***	0.2506***	0.7263***	0.1141***	1.0000				
9	Market Value (ln)	0.4720***	0.3124***	0.1750***	0.4224***	0.3233***	0.3441***	0.1243***	0.4401***	1.0000			
10	Leverage	0.2207***	0.0202	0.0143	0.1357***	0.0596**	0.3427***	0.0392	0.3916***	0.1066***	1.0000		
11	ROA	0.1824***	-0.0238	0.0674***	0.0985***	0.0702***	0.3359***	0.0178	0.3676***	0.2196***	0.1146***	1.0000	
12	Closely Held Shares (ln)	0.1300***	-0.0713***	0.0315	0.1046***	0.0619**	0.2613***	0.0308	0.4706***	0.1532***	0.1992***	0.2057***	1.0000
	Obs	5,529	5,529	5,529	5,529	5,529	5,529	5,529	4,758	5,048	5,009	4,990	4,819
	Mean	49.12	49.01	0.05	48.74	0.41	49.62	0.03	7.99	8.85	0.29	0.05	9.11
	Std. Dev.	24.08	32.03	0.34	30.22	1.50	32.05	0.20	2.68	1.15	0.45	0.09	2.53
	Min	4.95	9.45	0.00	3.43	0.00	1.38	0.00	0.00	-1.97	-12.01	-1.52	0.69
	Max	97.03	97.07	11.00	98.87	35.00	97.47	5.00	14.56	13.15	16.69	1.18	18.95

The table shows the correlation for 4,567 observations from 2006-2009. ***p<0.001; **p<0.01; *p<0.05; +p<0.10. This table also shows the descriptive statistics for all numeric variables.

TABLE 3.10

Correlation Matrices and Descriptive Statistics (Group 3)

	Variable	1	2	3	4	5	6	7	8	9	10	11	12
1	**ESG Index**	1.0000											
2	**EnvScore**	0.8430***	1.0000										
3	**Number of Env Controversies**	0.1683***	0.1122***	1.0000									
4	**SocScore**	0.8930***	0.7806***	0.12146**	1.0000								
5	**Number of Soc Controversies**	0.2286***	0.1872***	0.2115***	0.1451***	1.0000							
6	**CGScore**	0.7071***	0.2877***	0.1745***	0.4167***	0.2216***	1.0000						
7	**Number of CG Controversies**	0.0845***	0.0515+	0.0999***	0.0349	0.3949***	0.1166***	1.0000					
8	**Employees (ln)**	0.4875***	0.1987***	0.1520***	0.3225***	0.2864***	0.6564***	0.1415***	1.0000				
9	**Market Value (ln)**	0.4212***	0.2961***	0.2516***	0.3596***	0.4200***	0.3707***	0.1511***	0.4330***	1.0000			
10	**Leverage**	0.1943***	0.0771***	0.0359	0.1127***	0.0789***	0.2783***	0.0626**	0.2823***	0.1083***	1.0000		
11	**ROA**	0.2202***	0.0483	0.0740***	0.1333***	0.0937***	0.3481***	0.0104	0.3500***	0.2168***	0.0257	1.0000	
12	**Closely Held Shares (ln)**	0.0309	-0.0842***	0.0027	0.0248	0.0255	0.1320***	0.0241	0.4503***	0.1251***	0.0875***	0.1212***	1.0000
	Obs	5,049	5,049	5,049	5,049	5,049	5,049	5,049	4,538	5,033	5,026	4,979	4,886
	Mean	50.13	51.76	0.11	51.25	0.70	47.37	0.06	7.80	8.76	0.24	0.04	9.34
	Std. Dev.	25.40	31.32	0.59	30.02	2.48	32.05	0.33	2.70	1.02	0.54	0.08	2.85
	Min	5.05	8.61	0.00	3.75	0.00	1.24	0.00	0.00	4.69	-19.73	-0.75	0.00
	Max	95.57	95.01	11.00	97.87	57.00	96.87	6.00	14.60	12.91	5.72	1.19	19.50

The table shows the correlation for 4,392 observations from 2010-2012. ***p<0.001; **p<0.01; *p<0.05; +p<0.10. This table also shows the descriptive statistics for all numeric variables.

TABLE 3.11

Testing ESG Performance on the Adoption of the UNGC (Group 1)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
ESG Index	0.029***		0.029***		0.026**		0.027**	
Environmental Score		0.003		0.004		0.007		0.007
Social Score		0.018*		0.018*		0.019*		0.019*
CG Score		0.008		0.008		-0.001		-0.001
Total Env Contro			-0.134	-0.168			-0.272	-0.389
Total Soc Contro			0.010	0.013			0.041	0.029
Total CG Contro			-0.358	-0.377			-0.439	-0.460
Employees	0.386***	0.374***	0.387***	0.374***	0.299**	0.308**	0.299**	0.309**
Market Value	-0.022	-0.033	-0.023	-0.034	0.150	0.090	0.148	0.087
Closely	0.001	0.000	0.001	0.000	0.004	0.001	0.004	0.001
Dirty Industries	0.039	0.090	0.043	0.097	0.159	0.129	0.172	0.144
Leverage	-0.011+	-0.011	-0.011	-0.011	-0.018**	-0.017**	-0.018**	-0.017**
ROA	-0.018	-0.018	-0.017	-0.018	-0.050**	-0.046*	-0.049**	-0.045*
Market Economy	-4.378***	-4.339***	-4.367***	-4.324***				
Region - Asia & Pacific					-2.215+	-2.167+	-2.383+	-2.438+
Region - Europe					-1.085	-1.084	-1.248	-1.349
Region - Canada & US					-5.693***	-5.204***	-5.848***	-5.439***
Intercept	-6.605***	-6.453***	-6.615***	-6.463***	-5.844**	-5.594**	-5.693**	-5.352**
Log likelihood	-174.475	-173.691	-174.385	-173.579	-182.888	-180.984	-182.644	-180.661
#Obs.	1,906	1,906	1,906	1,906	1,906	1,906	1,906	1,906

+ p<0.1, * p<0.05, ** p<0.01, *** p<0.001

TABLE 3.12

Testing ESG Performance on the Adoption of the UNGC (Group 2)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
ESG Index	0.032***		0.032***		0.028***		0.028***	
Employees	0.107+	0.100	0.105+	0.097	-0.059	-0.022	-0.062	-0.026
Market Value	0.071	0.069	0.059	0.052	0.229*	0.177+	0.227*	0.166
Closely held shares	-0.003	-0.004	-0.003	-0.004	-0.003	-0.005	-0.003	-0.005
Dirty Industries	0.138	0.203	0.116	0.183	0.316	0.299	0.319	0.294
Leverage	-0.001	-0.001	-0.001	-0.001	-0.003+	-0.003	-0.003+	-0.003
ROA	-0.010	-0.010	-0.010	-0.010	-0.021*	-0.020+	-0.021*	-0.020+
Market Economy	-1.892***	-1.888***	-1.907***	-1.907***				
Environmental Score		0.003		0.002		0.005		0.005
Social Score		0.020***		0.020***		0.022***		0.022***
CG Score		0.010+		0.010+		-0.004		-0.004
Total Env Contro			0.120	0.120			-0.009	0.034
Total Soc Contro			0.014	0.027			0.025	0.037
Total CG Contro			-0.159	-0.164			-0.281	-0.324
Region - Asia & Pacific					-0.449	-0.371	-0.450	-0.376
Region - Europe					0.627	0.876	0.639	0.888
Region - Canada & US					-1.170	-0.548	-1.166	-0.542
Intercept	-6.080***	-6.007***	-5.954***	-5.828***	-6.270***	-6.246***	-6.233***	-6.123***
Log likelihood	-480.529	-478.938	-480.281	-478.582	-488.261	-483.289	-488.043	-482.918
#Obs.	4,571	4,571	4,571	4,571	4,571	4,571	4,571	4,571

+ p<0.1, * p<0.05, ** p<0.01, *** p<0.001

TABLE 3.13

Testing ESG Performance on the Adoption of the UNGC (Group 3)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
ESG Index	0.045***		0.044***		0.040***		0.040***	
Environmental Score		0.012*		0.012*		0.018**		0.018**
Social Score		0.022***		0.021***		0.018**		0.018**
CG Score		0.009+		0.009+		0.002		0.002
Total Env Contro			-0.107	-0.097			-0.164	-0.128
Total Soc Contro			0.013	0.017			0.029	0.028
Total CG Contro			-0.513	-0.527			-0.668	-0.677
Employees	-0.076	-0.057	-0.075	-0.057	-0.112*	-0.067	-0.111*	-0.067
Market Value	-0.017	-0.029	-0.004	-0.021	0.050	0.013	0.059	0.021
Closely held shares	0.000	0.000	0.001	0.000	0.001	0.001	0.001	0.001
Dirty Industries	-0.039	-0.038	-0.020	-0.021	0.056	0.003	0.085	0.025
Leverage	0.002	0.002	0.002	0.002	0.000	0.001	0.001	0.001
ROA	0.010	0.011	0.009	0.010	-0.001	0.004	-0.001	0.004
Market Economy	-1.729***	-1.531***	-1.687***	-1.488***				
Region - Asia & Pacific					-0.840*	-0.863*	-0.839*	-0.862*
Region - Europe					-0.793*	-0.720+	-0.785*	-0.716+
Region - Canada & US					-2.387***	-2.061***	-2.360***	-2.042***
Intercept	-4.901***	-4.983***	-5.010***	-5.052***	-4.487***	-4.640***	-4.579***	-4.708***
Log likelihood	-471.670	-470.621	-471.045	-470.000	-474.853	-470.859	-473.654	-469.802
#Obs.	4,395	4,395	4,395	4,395	4,395	4,395	4,395	4,395

+ p<0.1, * p<0.05, ** p<0.01, *** p<0.001

3.4.4. Expelled Firms from the UNGC

This sections shows expelled firms based in the US. The US was used as sample as there are not many delisted firms in the sample. As of 19/06/2016 the number of large companies, SMEs, NGOs and other organizations based on the US and members of the UNGC was 970; however, only 372 were active, 369 were already delisted and 229 where classified as non-communicating. The US local network had 709 members as of April 2014 (UNGC, 2016d) fact that might indicate a real involvement of different organizations with the initiative; however, the performance and impact of the American local network is out of the scope of this paper. Figure 3.5 shows the status of the US entities that have joined the Global Compact. From 372 active entities, 128 are large public and private companies. The number of delisted members is about the same than the number of active members, but the figure of large companies is smaller (74) than in the previous category. On the other hand, the percentage of large companies in the non-communicating status is very small in relation to the total (3%). The delisting policy was set up in 2005; since then and until the time of this report (June, 2016), 48 US firms had been expelled. From this number 32 are private, 8 are public and 8 were not identified. As we can see from Figure 3.6, 35% of the firms expelled remained in the initiative for about 2 years while only 4% stayed for 7 years, this is, just 2 firms. One of these firms belongs to the private sector within the mining industry and its last report was submitted in 2013. The other one is also a private firm in the construction industry. Figure 3.8 shows that 13 out of the 17 firms that became UNGC members in 2011, were expelled in 2013. General Industrials sector has the

highest number of delisted firms (Figure 3.8). All the delisted firms in the USA are due to failing to submit the Communication of Progress report.

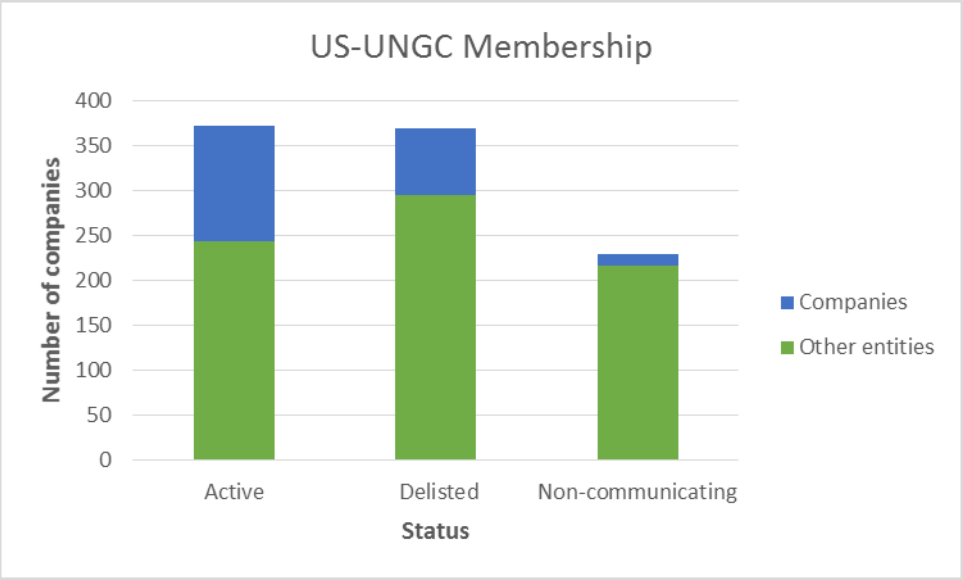


Figure 3.5 Adapted from *Our Participants* (UNGC,2016c). Retrieved from https://www.unglobalcompact.org/what-is-gc/participants on 19/06/2016.

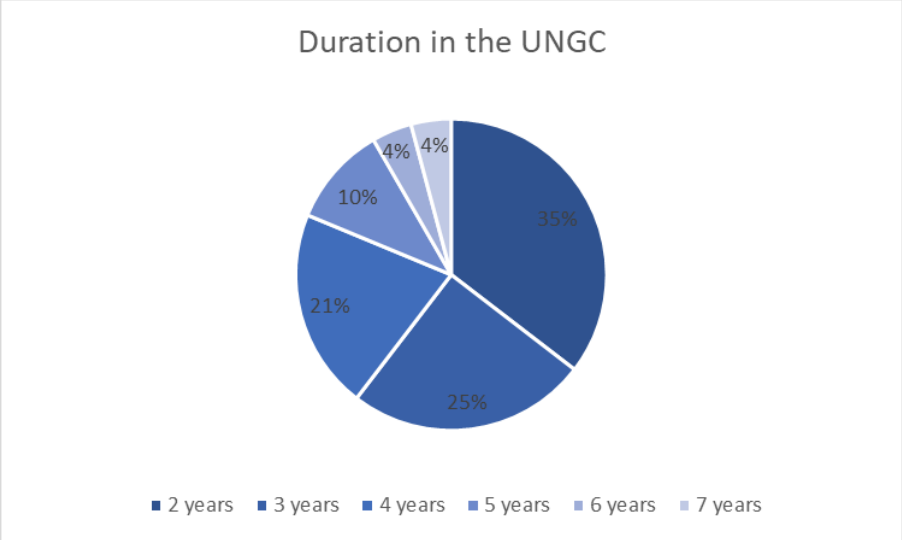


Figure 3.6 Adapted from *Our Participants* (UNGC,2016c). Retrieved from https://www.unglobalcompact.org/what-is-gc/participants on 19/06/2016.

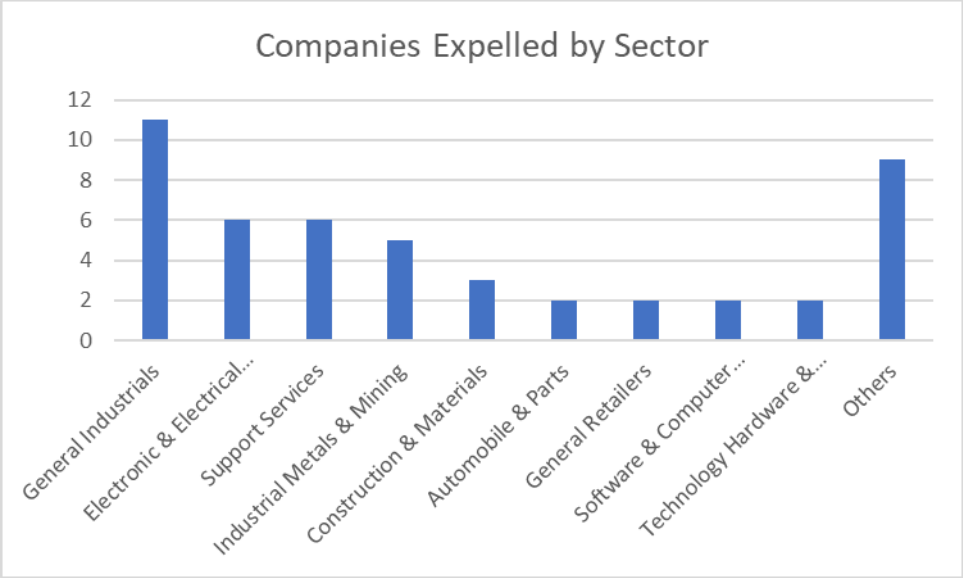


Figure 3.7 Adapted from *Our Participants* (UNGC,2016c). Retrieved from https://www.unglobalcompact.org/what-is-gc/participants on 19/06/2016.

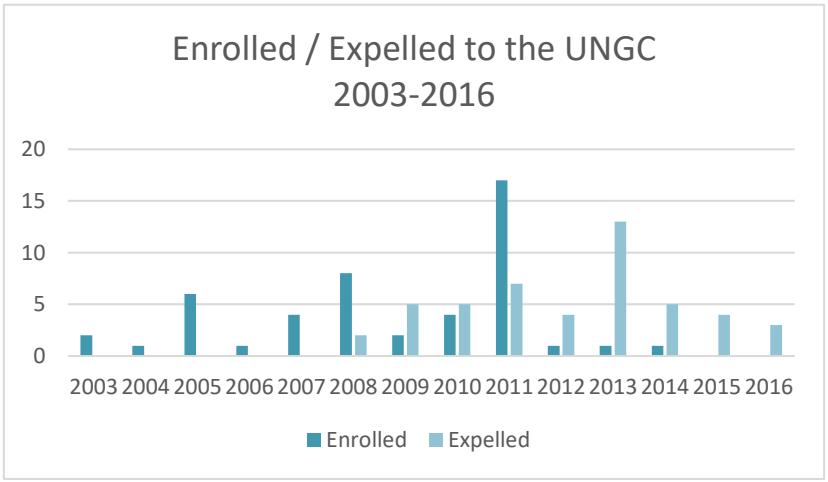


Figure 3.8 Adapted from *Our Participants* (UNGC,2016c). Retrieved from https://www.unglobalcompact.org/what-is-gc/participants on 19/06/2016.

3.5. DISCUSSION AND FUTURE RESEARCH

My findings show a positive relationship between corporate social performance and the adoption of the UNGC as a CSR strategy for corporate disclosure. According to Mallin et al. (2013) firms tend to report more when the social performance is poor and report more when the environmental performance is high. The governance score shows a weak relationship with the UNGC, this might indicate process and outcomes under this heading do not get any benefit from the adoption of the UNGC namely reputation.

Contrary to what many parties criticize about the UNGC, my results show that it is not use as a bluewashing tool. However, these results need to be taken with caution, as I only consider the existence but not the number or strength of the controversy. It would be interesting to consider this variation in the model.

Surprisingly, my results show that size is not significant to make a decision of support the Ten Principles. It was significant at the beginning of the initiative but attending only to the number of employees and not to the market value. It was somewhat important during the following years but currently is not. This might suggest that large, notable firms were looking for the first mover advantage and followers and late adopters just went with the flow.

My findings are also in line with those of academics highlighting the uninterested participation of American firms in the Ten Principles (Arevalo et al., 2013; Coulmont and Berthelot, 2015; Janney, Dess and Forlani, 2009).

The analysis presented in this paper is based on a non-repeated event (adoption of the UNGC for the first time) and do not consider those cases when firms decide not to continue being members of the initiative and then join again. Further research can focus on this. As I focus on a single event (joined) I either consider when firms are

classified as non-communicating or the time for firms to be expelled from the initiative. So, future research can use EHA for multiple kinds of events to analyse how long does a company remain as a member of the initiative and their reasons to leave.

Additionally, this study starts in 2003 due to data availability. Constructing a new database based in literature on reporting might be useful to replicate this study from 2000.

A limitation to my study is the ASSET4 database. Despite the efforts of rating and ranking agencies on the one hand and of academics on the other to measure CSR, it is still challenging to find a consensus to assess the results of the implementation of policies and programmes related to environmental, social and corporate governance issues. Most of the agencies look at information provided by firms themselves on their websites, annual reports (financial and non-financial), and other sources. Due to the lack of general accepted principles to report non-financial information, firms might report much in one aspect, for instance implementation of policies, but omit to report about their results (likely the most important); making information difficult to compare across firms, industries, countries, etcetera. By providing this information firms legitimize their actions, produce long-term relationships with their stakeholders, manage their image, and if done properly, create competitive advantage. For this reason, it is very important to understand what the available information is telling us.

Chatterji et al. (2009) analyse the Kinder, Lydenberg, Domini Research and Analytics (KLD) which covers only US firms. The authors find that KLD hardly measures the quality of firms' environmental management systems; however, they do well in spotting firms with an overall negative past environmental performance. The authors also suggest that there is not need to summarize the aggregates within 1/0 category, but it would be more useful for the stakeholders to have a manageable

continuous measure. In line with this study, Semenova and Hassel (2015) compares the environmental component of three providers: KLD, ASSET4 and GES. She highlights that the strengths and concerns provided by KLD must not be combined within a single score as their composition is different. Furthermore, the study shows that KLD strengths, GES and ASSET4 are significantly correlated; whereas, KLD concerns, GES environmental risk and CO2 Emissions reported by ASSET4 are also highly correlated.

Mackenzie and Rees (2011) compare the similar dimensions from both ASSET4 and FTSE4GOOD and find that they are positively and significantly correlated. The study also shows that there are some differences caused by the measurement method, particularly regarding to risk adjustment. The authors suggest that ASSET4 score increases with high-risk while FTSE4GOOD method is more rigorous and therefore, the score for firms with high-risk tend to decrease.

Furthermore, Delmas et al. (2013) present an analysis of the environmental score produced by three CSR providers: KLD Research and Analytics, Trucost, and Sustainable Asset Management (SAM) (which produces the Dow Jones Sustainability Indexes). The authors focus on the environmental element (process and performance) of CSR as it is covered by most of the providers and also is easier to quantify (i.e. compared with social practices). Results show that the two aggregates can explain up to 80% of the data variation, and that financial performance is linked to processes (i.e. implementation of practices) but not to outcomes (i.e. concerns).

3.6. CONCLUSIONS

The UNGC can be considered as a mechanism to legitimize current CSR practices and performance. By reporting through the UNGC firms respond to institutional pressures (e.g. NGO´s and unions). Research suggest that firms issuing a standalone voluntary report should be recompensed as they tend to be more transparent than those issuing a different report (Mahoney et al. 2013; Lyon and Maxwell, 2011). My finding show that the UNGC is more attractive to report social and environmental performance than to report governance improvements. It could be the case that stakeholders rely more in this type of initiatives for social and environmental reporting while for governance issues they trust more in specific local initiatives as for instance, the UK Corporate Governance Code.

We can also conclude that there are changes in the characteristics of members joining the initiative. If it is true that for instance early adopters or leaders are moved by a competitive advantage (Porter and Kramer, 2016); followers or late adopters may want to legitimize their performance by participating in the same initiative. However, the level of corporate social performance between early and late adopters is different due to the institutional pressures latent at the time of adoption. More specifically, Group 1 in my study was characterized for reporting social performance whereas in Group 3, firms joining the UNGC besides reporting social performance, it was important to show some degree of environmental and corporate governance performance.

In addition, although some academics mention the UNGC as a symbolic initiative, my results do not reflect that perspective at least from an analysis based on the number of existing controversies. Prior research has lighted the possibility of using voluntary CSR initiatives to uncover unhealthy practices but at the same time

has proposed different practices that can be applied in order to use the available information in substitution of mandatory frameworks.

Finally, it would be interesting to look deeper into expelled firms. Unfortunately, for this case, there were not many expelled firms within the sample neglecting the opportunity of carrying out further statistical analysis. A point that can be rescued from this brief analysis is that listed firms have the institutional pressures of reporting on CSR actions and results and therefore, they are less prone to leave the initiative. It is important to mention that most of the expelled firms are the result of not comply with the Communication on Progress report.

This study is particularly important for academics, policy makers, managers, responsible investors and other stakeholders interested in firms' behaviour towards CSR voluntary initiatives. In the academic field, this paper adds to the literature on CSR, particularly, to the understanding of the role of the United Nation Global Compact in the diffusion and legitimation of CSR practices. For policy makers, the findings of this paper contribute to the understanding of the behaviour and strategy used by the membership of these frameworks. Managers can find in this paper, elements to support their strategic decisions related to CSR implementation and legitimation. Stakeholder activists (responsible investors, employees, NGOs and other stakeholders) might find this paper useful for engagement purposes (i.e. understanding the characteristics of late adopters despite having a good CSP).

CHAPTER 4

Board Composition, Environmental and Social Performance and the Adoption of Voluntary Initiatives

Abstract

This paper explores the relationship between the board of directors and the adoption of Voluntary CSR Initiatives, namely United Nations Global Compact (UNGC). Drawing upon corporate governance and management literature and primary based on Institutional Theory, I examine if and how CSR oriented boards of directors are related to the adoption of these type of initiatives. Furthermore, I consider the existence of environmental and social practices as a mediator of the relationship. According to prior literature, the board of directors can be seen as a) an agent for controlling CEO performance and behaviour, and b) as a supplier of resources, which includes advice, service and counselling. The latter function provides a link between the firm and its stakeholders. In addition, the environmental and social performance contribute to the selection of the strategy to communicate with stakeholders. The study of the relationship between these three elements has received little attention; therefore, this paper adds to the literature on this area. The sample consists of all the firms in the ASSET4 database based in the USA. The period of study covers from 2002 to 2013.

The relationships are analysed using structural equation modelling (SME). I consider multiple dimensions to define the board of directors and the environmental and social constructs (latent variables). Results show that the characteristics of the management in the selection of the strategy, i.e. the UNGC and the GRI. These findings add to the growing literature on the influence of executives on the establishment of CSR strategies.

Key words: board of directors, voluntary CSR initiatives, environmental and social performance, UNGC, GRI, SEM.

4.1. INTRODUCTION

This chapter investigates the link between the characteristics of the board of directors, and voluntary CSR initiatives among US-based firms. I consider the existence of environmental and social performance as a mediator of this relationship. In addition, I compare the United Nations Global Compact (UNGC) to the Global Reporting Initiative (GRI), two of the most prominent initiatives on Corporate Social Responsibility, to identify any similarities and differences in the characteristics of the management. I depart from the premise that management adopt these initiatives mainly for two reasons: as a mechanism for reputation management and to communicate with their stakeholders. Examples such as the recent Volkswagen scandal regarding faulty carbon emission tests and the subsequent resignation of the CEO suggests that executives are to some extent held responsible for misleading product strategies related to the impact on the environment. Furthermore, the growing concern of stakeholders (e.g. investors, consumer and employees) about climate change, social practices and ethical behaviour of business demands the attention of managers (Mitchell et al., 1997; Stern, 2006; UN, 2016; UKCode, 2016).

Prior research has focused on the influence of corporate governance on corporate social responsibility (CSR) disclosure (Liao, Luo and Tang, 2015; Michelon and Parbonetti, 2012; Orlitzky, Siegel and Waldman, 2011) and on corporate social performance (Johnson and Greening, 1999; Mallin and Michelon, 2011). More recently, the link between these three elements has been explored (Mallin et al., 2013; Shaukat, Qui and Trojanowski, 2016). In this chapter, I also establish a relationship between the board of directors, the corporate social performance and the CSR disclosure but using a different approach, I compare two voluntary CSR initiatives used as part of the strategy for communication with stakeholders. Rasche, Waddock

and McIntosh (2013) mention that in order to measure the impact of the UNGC, *"the key challenge will be to isolate the effects of the Global Compact participation, as firms often have implemented social and environmental policies before joining the initiative"* (pp 17-18). This last suggestion supports the path between corporate social performance and the adoption of similar initiatives.

The board of directors has received attention from two streams of the academic literature. Traditionally, agency theory has depicted the board as a monitoring mechanism to protect the interest of the shareholders (principals) from the personal interest of the CEO (agent) (Fama and Jensen, 1983; Meckling and Jensen, 1976). However, directors have also been conceptualized from the perspective of resource dependence theory as a mechanism for connecting the firm with the external environment in order to guarantee its survival (Hillman and Dalziel, 2003; Pfeffer, 1972; Pfeffer and Salancik, 2003). This conceptualization has been extended to the CSR field to understand why and how different types of directors can promote more environmental and social practices within their organization. For instance, Mallin and Michelon (2011) find that independent, community influential and female directors are positively associated with corporate social performance whereas CEO duality is negatively related. Shaukat et al. (2016) reinforce Mallin and Michelon's (2011) findings by treating endogeneity between CSP and board CSR orientation and find that firms with superior CSP tend to further strengthen their board CSR orientation. In this paper, I examine four characteristics of the board membership: female directors, independent directors, CSR committees and CEO duality.

In addition to the resource dependence theory, this study also relies on the resource-based view to complement the understanding of the reasons for implementing environmental and social practices and adopting voluntary initiatives.

Barney (2001) points out that the resource-based view analyses the sources that firms have to create and sustain a competitive advantage. Hart (1995) proposes a new approach to this theory by considering the natural environment of the firm. In the study of strategic CSR, Porter and Kramer (2006) suggest that *"creating shared value should be viewed like research and development, as a long-term investment in a company's future competitiveness"* (p.13). In this sense, investing in environmental and social practices, programmes and strategies in support of different stakeholders can be considered as a driver for creating competitive advantage and enhancing reputation.

The sample comprises all the firms in the ASSET4 database with headquarters in the USA for the period 2002-2013. The USA was selected for this study for two main reasons. First, the USA´s corporate governance institutions are well established. And second, the USA has the largest number of firms participating in the financial markets which provides more variability in the dataset I am using (see Table 2.9 in Chapter 2).

The key questions of this study are: a) what characteristics of the board of directors encourage the adoption of voluntary CSR initiatives? b) Are the levels of environmental and social performance a driver for the adoption of such initiatives? In order to answer these questions, I use structural equation modelling (SEM). SEM is based on linear regression, path analysis and confirmatory factor analysis (CFA) which is appropriate for answering the research questions established.

Findings show that CSR oriented boards of directors, particularly with CSR committees, support the adoption of voluntary CSR initiative through corporate social performance. This is in line with resource dependence theory and resource based view, which in general suggest that this type of boards can enhance reputation and legitimize

corporate social performance, at the same time than creating a competitive advantage. My results also show that there is a greater support for the adoption of voluntary CSR initiatives from social performance than from environmental performance.

This work provides a number of contributions. First, this study provides further evidence for the relationship between the characteristics of the board of directors and the selection of the CSR strategy. Therefore, I add to the literature on corporate governance, on corporate social performance and CSR disclosure. Second, in terms of voluntary CSR reporting literature, previous research has surveyed CEOs to understand why they decide to join the initiative but to the best of my knowledge, this is the first study on the characteristics of the board of directors and the United Nations Global Compact/ Global Reporting Initiative. Third, I consider that this work might be beneficial for a number of stakeholders interested in promoting the voluntary adoption of CSR initiatives through the board of directors.

The chapter has the following structure. First, I present the rationale and contribution of the study and draw the hypotheses from existent literature. The sample, data and methods used are described in the next section under the name 'Research Design'. Then, I comment the outcome of the analysis using SEM. The next section contains a discussion of the results, lists the limitations of this paper and makes suggestions for further research. The chapter closes with the presentation of the conclusions.

4.2. BACKGROUND AND DEVELOPMENT OF HYPOTHESIS

4.2.1. Theoretical Framework

The main questions this research aims to answer are which characteristics of the board of directors and what type of environmental and social performance are related to the adoption of voluntary CSR initiatives. Furthermore, I explore how the environmental and social performances change according to the firm´s strategy to gain legitimacy. The potential existence of these relationships is studied through the lens of resource dependence theory (RDT) and resource-based view perspective (RBV).

Traditionally, the board of directors, its functions and composition, have been studied in the corporate governance field as an agent for controlling CEO performance and managerial activities on behalf of the shareholders (Fama and Jensen, 1983; Jensen and Meckling 1976). However, Hillman and Dalziel (2003) emphasize the existence of the board of directors as supplier of resources, namely legitimacy, networking, and advice and counselling among others. This function, also known as advice, strategic or service role, has been portrayed by academic researchers using resource dependence theory (Hillman, Canella and Paetzold, 2000; Johnson, Daily and Ellstrand, 1996; Pfeffer 1972; Pfeffer and Salancik, 2003) and stakeholders' theory. (Aguilera et al., 2007; Johnson and Greening, 1999; Luoma and Goodstein, 1999; Hillman, Keim and Luce, 2001; Huse, 2005).

Zahra and Pearce (1989) distinguish between two types of roles for directors in addition to the control role: strategy and service. Furthermore, Johnson et al. (1996) define a service role and a resource dependence role. Both papers rely on Pfeffer and Salancik's (2003) original work (Hillman and Dalziel, 2003) on resource dependence. From Pfeffer and Salancik (2003) perspective, the board of directors can be seen as a linkage that provides four benefits. The first one is a strategic role coming from

interconnecting directors among competitors. The second benefit refers to improving communication channels between external organizations and the firm. Third, directors can also secure support from outside elements. Finally, board members are regarded as a tool for generating or reinforcing the legitimacy of the firm. Hillman and Dalziel (2003) analyse both controlling and resource provider roles and concludes that they do not exist separately but that they are embedded in each other. Resource dependence theory has also been employed to understand how directorates affect the environmental and social aspects namely performance, strategy and disclosure (e.g. Mallin and Michelon, 2011; Mallin et al., 2013; Michelon and Parbonetti, 2012; Shaukat et al., 2016).

Resource dependency theory is closely related to Institutional Theory. DiMaggio and Powell (1983) propose that organizations imitate those organizations that have been institutionalized, and they do it through isomorphic processes (i.e. coercive, mimetic and normative). In so doing, organizations aim to gain legitimacy which is defined by Suchman as a *´generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions´* (1995, p. 574). Organizations can accept and conform or conversely can resist to those isomorphic processes as part of their strategy. Organizations, translated in this case to board of directors, will adapt to the institutionalized environment (i.e. adoption of the UNGC/GRI) if stakeholders demand to do it and the dependence of resources from these stakeholders is large (Oliver, 1991).

I also use resource-based view approach to explain why companies would adopt CSR voluntary initiatives. Previous literature suggests that firms with skilled human resources can perform better creating competitive advantages (Castelo and

Lima, 2006; Clarkson, Li and Richardson, 2011, Hart, 1995, Porter and van der Linde, 1995). In words of Hart (1995) *"[r]esource-based theory takes the perspective that valuable, costly-to-copy firm resources and capabilities provide the key sources of sustainable competitive advantage"* (p. 986). Hart (1995) proposes to consider the natural environment as a resource in addition to internal firm capabilities and other external factors originally considered by the resource-based perspective. In addition, Porter and Kramer (2006) point out that in order to success, companies need a strong society, and societies need companies suggesting that both actors should work under the principle of shared value. Furthermore, Castelo and Lima (2006) suggest that a disclosure of corporate information regarding its behaviour can enhance reputation, attracting and retaining better employees. Thus, it seems quite sensitive to think in the implementation of environmental and social practices to create a competitive advantage and possibly in adopting initiatives that can help them to achieve that aim.

In this sense, Shaukat et al., (2016) argue that *"firms with more CSR oriented boards (…) develop a more proactive and comprehensive board CSR strategy (…) such firms in turn achieve superior environmental and social performance"* (p.570). Mallin et al. (2013) study the monitoring and resource dependence roles separately and their effect on the quality and extent of the environmental and social information disclosed, using as mediators 'people' and 'product' categories. In the model I show, I test a similar model to Mallin et al. (2013) but using two initiatives: the UNGC and the GRI.

4.2.2. Board Composition

The board of directors is an important piece within the firm structure to enhance responsible business. From agency theory, we learn that board members are an

important mechanism to balance the personal interest of the CEO with those of the shareholders; whereas from resource dependence theory and stakeholder theory we acknowledge the service role of the board where different stakeholders are represented offering some room for environmental and social practices. Mackenzie (2007) surveys UK market to analyse whether CSR performance is in line with the policies, programmes and standards established by the boardroom while complying with the country's law where the participation of directors in setting this type of activities is compulsory. His findings suggest that directors should focus on tackle the incongruences presented by both the market failure (information asymmetry, absence of competition and externalities) and internal incentives (executive compensation systems) towards CSR performance; however, he also recognizes that attending the market place malfunctions is not a panacea for improving environmental and social performance as some aspects as discrimination of minority groups do not precisely result from such malfunctions. Therefore, board members must ensure that the programmes and policies are applied, and must also establish mechanism for controlling (i.e. measure and correct) them.

Moreover, academic research has also paid attention to the attributes of board members that reinforce environmental and social practices. For instance, Mallin and Michelon (2011) find that board reputation has a positive effect on CSR more particularly when considering independent, community influential and female directors. I investigate four governance mechanisms of the dual role of the board: gender diversity, independent directors, CSR committee and CEO duality which are detailed in the next paragraphs. For the purpose of this chapter a CSR oriented board is the board of directors that supports the implementation of social and environmental policies and activities and their accountability through voluntary reporting initiatives.

4.2.2.1. Board Gender Diversity

Evidence from academic research shows that the inclusion of women on the board of directors is growing and that it is related to higher social and environmental scores. In a number of countries such as Belgium, France, Italy, Netherlands, Norway and Spain, the presence of female managers is mandatory having to comply with a quota (de Beaufort and Summers, 2014). In other countries such as Australia, Germany, the United Kingdom and the United States of America the approach is comply-or-explain (Labelle, Francoeur and Lakhal, 2015). Post, Rahman and Rubow, (2011) find that a critical mass of at least three women are needed to produce a change in environmental performance. Furthermore, Ben-Amar, Chang and McIlkenny, (2015) explores publicly listed Canadian firms, where there is not mandatory statement about the presence of women on the management, in order to determine the influence of females in strategic decisions as taking part of the Carbon Disclosure Project. Their findings suggest that at least two women are required to observe a positive impact on the disclosure of greenhouse gas emissions. In a similar study, Liao et al., (2015) find that the presence of women is important for both propensity and the level of GHG disclosure. Hillman, Canella and Harris, (2002) analyse the differences between women, racial minorities and white men directors finding that occupation, education, and patterns of directorship make a difference among the groups of study. This is, women and racial minorities have backgrounds in non-business careers, have higher levels of education, and join boards faster after their second directorship. From a different perspective, Nielsen and Huse (2010) also analyse the participation of women on boards but focusing on their contribution to decision-making and processes. They find that the main difference lies on the leadership style rather in the behaviour, for instance, strategic tasks benefits from the presence of women,

supporting important corporate practices such as those related to the society and the environment. These findings are supported by Mallin and Michelon (2011) study where women on the boardroom have a positive and significant relationship with community performance, employees' relations and human rights dimensions. More recently, Al-Shaer and Zaman (2016) find the women have a positive and significant effect on the quality of ESG reporting.

In sum, I expect the percentage of women on the board to favour environmental and social practices.

4.2.2.2. Independent Directors

Current research in corporate governance and CSR indicates that independent directors are a critical element within the board as they bring an advantageous blend of backgrounds and knowledge to the company. In this regard, Pfeffer and Salancik (2003) consider that a connection with an external organization can be achieved with the interlock of directors with the required expertise and skills. Furthermore, Pfeffer and Salancik (2003) argue that independent directors can provide support from outside organizations if the directors belong to any of those organizations (i.e. banks), and even if their functions are merely symbolic. Therefore, appointing outside directors is important for managing relations with different stakeholders.

Taking these precedents to CSR, Johnson and Greening (1999) find positive results for the relationship between outsider directors and environmental and social performance, represented by product and people respectively, concluding that the diversification of the board makes it more sensitive to the needs of their stakeholders. The results from Post, Rahman and McQuillen, (2015) regarding the adoption of renewable energy strategic alliances show a positive relationship between the

alliances and independent directors. Liao et al. (2015) find that independent directors are positively related to disclosure propensity but not to the level of disclosure.

Contrary to the literature presented, Gul and Leung (2004) find that experienced independent directors have a negative effect on voluntary disclosure; however, this voluntary disclosure refers to background information, financial performance information and non-financial performance. The latter contains a few items related to social or environmental issues this might be why their results vary in relation to the literature presented above.

Because of these findings, I anticipate a positive relation between independent directorates and the adoption and disclosure of environmental and social practices.

4.2.2.3. CSR Committee

A company that has a CSR committee is singling its commitment to environmental and social practices (Mallin and Michelon, 2011). Zahra and Pearce (1989) manifest that the board structure of a company influence the director's devotion to build the strategic plan due to the internal organization and division of tasks among committees. In this regard, Mallin and Michelon (2011) provide supporting evidence by analysing the US Best Corporate Citizens. Liao et al. (2015) obtain similar results: environment committees enhances environmental performance.

However, results are mixed. Michelon and Parbonetti (2012) find a modest relationship between the existence of a CSR committee or director suggesting that age of the committee (or directorate position) might be relevant in the analysis. In addition, they report that the low levels of variability in the data might influence the results. Although, these finding do not show evidence of the prepositions considered by resource dependence theory, they seem to be in line with the finding of Mackenzie

(2007). From interviews conducted by Mackenzie (2007) with board members of UK based firms, he suggests that "*CSR committees are aware of the symptoms of market failure problems, but do not seem to have a clear diagnosis of their underlying economic causes, and so their activities are not targeted at addressing them, at least not systematically*" (2007, p. 940). Rodrigue et al. (2013) find that environmental committees have a symbolic role limited to verify the compliance with regulatory frameworks rather than pushing substantive practices. They add that environmental issues are considered at the board level from the risk management approach and that the role of committee helps to maintain good relations with stakeholders.

As exposed by the literature, it is not clear if the CSR committee supports the implementation of environmental and social practices in order to improve corporate performance.

4.2.2.4. CEO Duality

The figure of the CEO as the chairperson of the board and its relation with environmental and social practices is also investigated. Fama and Jensen (1983) states that CEO duality is not an effective mechanism for controlling because managerial decisions are concentrated in one person. In this same line but focusing in corporate disclosure policies, Gul and Leung (2004) argue that CEO duality may inhibit board functions and therefore the disclosure of their practices; however, the effect is diminished when the percentage of independent directors is high. Cerbioni and Parbonetti (2007) also find that concentrated decision-making power negatively affects firm information disclosure. Fabrizi, Mallin and Michelon (2014) find that CEOs' incentives (monetary and non-monetary) impact the decision of adopting CSR practices. For instance, the authors suggest that incoming CEOs are more willing to

adopt CSR practices, as they need to gain legitimacy among a wide number of stakeholders and have a long time horizon. It is also suggested that powerful and entrenched CEOs engage more in CSR because they have less pressures from the market and can address additional concerns.

Despite the results shown by the literature are mainly negative, resource dependency perspective conceives CEO duality an advantage representing a strong leadership with a clear aim (Mallin and Michelon (2011); however, this consideration is again brought down by Mallin and Michelon (2011) findings. Hence, I expect CEO duality to be negatively related to environmental and social performance.

Based on the above arguments, I posit the following hypotheses:

H1a. CSR oriented boards are positively associated with social performance.

H1b. CSR oriented boards are positively associated with environmental performance.

4.2.3. Voluntary CSR Initiatives as Mechanisms for CSR Strategy

This section describes two of the largest and well-known voluntary CSR initiatives: the UNGC and the GRI. In order to test the strategic response of the management, I compare these two initiatives. Previous literature on both initiatives poses that their adoption would assist the management in the legitimization of their actions (Arevalo, 2010; Chen and Bouvain, 2009; Nikolaeva and Bicho, 2011), although some research also mentions that the communication will follow a symbolic or substantive approach (Pérez-Batres, at al. 2012).

Currently, the UNGC accounts for 12,000 members (business and non-business) (UNGC, 2016a) and comprises Ten Principles related to human rights, labour, environment and anti-corruption practices. Business members are required to submit an annual report called 'communication on progress (COP)' and those that fail to submit it are delisted. The process to become member of the initiative is quite straightforward: it only requires a letter from the CEO manifesting the corporate commitment to the Ten Principles. The UNGC provides advice on how to enhance sustainable practices, and creates local and global connections to learn from each other.

Since its inception, the UNGC has have a low participation of US firms, a fact that has been highlighted in most of the literature about the initiative (see also Table 2.9). In a study carry out by Hemphill (2005), he mentions that one of the weaknesses of the UNGC to fully flourish is the reduced participation of US firms. Hemphill (2005) points out that this reaction could be due to the fear of facing demands from stakeholders for not complying with the principles but at the same time suggests that it could have been temporal as the UNGC implemented a 'legal' letter to protect them from stakeholders' lawsuits. However, this phenomenon goes beyond of lawsuit issues, it is crucial to acknowledge the political relationship between the UN and the US, which is explained by the work presented, by Patrick and Forman (2002). The authors put together a number of studies related to the ambivalence of the US foreign policy towards multilateral cooperation; they include climate change, human rights and the US relation with the UN among other areas. The authors suggest that it is very important that the US citizens and congress account for the convenience of taking part of international institutions for managing 'common goods'. Karns and Mingst (2002) evaluate the relationship between the US and the UN suggesting that *'the nation's*

power, domestic politics, and "exceptionalist" traditions – as well as politics within the UN itself- have encouraged U.S. ambivalence and scepticism about the UN's value' (2002, p. 268). In this line, Bennie, Bernhagen and Mitchell (2007) explore different logics at country level to determine firm's participation in the UNGC. Their findings suggest that the political environment (e.g. green parties in government and political system) and the general antipathy of the US towards any initiative of the United Nations (i.e. Kyoto Protocol ratification or Rome Statute of the International Criminal Court) are important drivers for such (non) participation.

Rasche et al. (2013) make a call for more research illustrating the relationship between the adoption of voluntary CSR initiatives and corporate social performance, as most of the literature that measures the impact of the UNGC does not take into consideration the prior CSP. They mention that *"the key challenge will be to isolate the effects of the Global Compact participation, as firms often have implemented social and environmental policies before joining the initiative"* (2013, pp. 17-18). This last recommendation provides the path between corporate social performance and the UNGC. Probably the closest case to depict this relationship is the study presented by Perez-Batres, Doh and Pisani, (2012). They considered the pressures of stakeholders (or what others would call CSP[23]) as a motivation to become member of the initiative. Their findings suggests that public American firms that take CSR seriously prefer to adopt more structured frameworks (e.g. Global Reporting Initiative - GRI) over those with more flexibility in the reporting and auditing activities (e.g. UNGC), overall when the firm belongs to a 'dirty industry' or has enough financial resources to invest on social and environmental practices.

[23] Perez-Batres et al. (2012) employed the KLD scores and gave the interpretation of stakeholder pressures.

Moreover, in a comparative study Chen and Bouvain (2009) analyse the communication of German, UK, US and Australian firms regarding their CSR performance. The authors show that US firms tend to report more on community and employee topics and do also have less preference for third-party assurance. On the other hand, from the analysis presented by Arevalo (2010), it can be clearly observed that out of 36 firms joining the UNGC in year 2000, only two firms were located in the US; however, both firms disclosed more information than the average for the period 2001-2009. Both companies also showed full engagement with the initiative (i.e. number of COPs submitted and engagement activities).

On the other hand, the Global Reporting Initiative (GRI) was founded in 1997 by private international stakeholders in the US. The initiative covers the same areas than the UNGC through guidelines that have recently evolved to standards (GRI, 2018). The main difference is in the structure of the report: the COP is quite flexible whereas the GRI report is based on a number of items that members need to assess. Furthermore, the UNGC COP is not under revision whereas the GRI report is subject of evaluation and a distinction is awarded according to the disclosed information. The GRI has strategic alliances with other initiatives as the UNGC and ISO26000. Firms deciding to report under this guidelines need to express it in the sustainability report which can be a stand alone document or as part of a document displaying financial information as well. From 1 July, 2018 it is mandatory to use this new standards but there are some facilities for new members. Although it is not clear if the different levels on reporting (Hassan et al, 2013) still apply after this date, they were applicable for the period of this study. (Barkermeyer, et al., 2015)

Considering the arguments in this section, I posit the following hypotheses:

H2a. Social performance is positively related to the adoption of the UNGC/GRI.

H2b. Environmental performance is positively related to the adoption of the UNGC/GRI.

4.2.4. The Board of Directors and voluntary CSR initiatives

Prior research has focused on the influence of corporate governance on corporate social responsibility (CSR) disclosure (Liao et al., 2015; Michelon and Parbonetti, 2012; Orlitzky et al., 2011) and performance (Johnson and Greening, 1999; Mallin and Michelon, 2011) separately. More recently, the link between these three items has been put together (Mallin et al., 2013; Shaukat et al., 2016). In a study conducted by Mallin et al. (2013) the authors took into consideration the two streams of the board of directors: monitoring and stakeholder. Their findings suggest a positive and significant relationship between directors and CSP. Furthermore, Mallin et al. (2013) find that environmental performance is positively related to extent and quality of disclosure; however, social performance is negatively related to both types of disclosure. Such findings suggest that environmental issues are taken at the heart of the company probably due to more pressure from stakeholders, paying less attention to aspects as employee relations, human rights and community relations, which are emphasized in reports probably with the intention of legitimizing corporate behaviour (Mallin et al., 2013). On the other hand, Shaukat et al. (2016) find that the strategy established by the board of directors will improve environmental and social performance, and CSP will reinforce a balanced board in terms of CSR.

The emerging literature mentioned above, invites to undertake research in that vein. In the case of the UNGC, CEOs have argued that the decision of participating in

the initiative is driven by the economic and reputational impact that it might have on their firms (Arevalo et al., 2013; Cetindamar and Husoy, 2007). The 2016 United Nations Global Compact-Accenture Stretegy CEO study shows the enthusiasm of the executives of firm members of the UNGC. 87% of the CEOs in the survey considered that the adoption of the Sustainable Development Goals will create sustained value (UNGC-Accenture, 2016). While the European markets react positively to firms joining the UNGC, US-based firms obtain negative returns for the same action. Furthermore, financial returns might drop off if European firms fail to submit the COP (Janney, Dess and Forlani, 2009). This suggests that CSR oriented boards of directors in the US support CSP and CSR disclosure though not through the UNGC as it can be detrimental for the legitimization of their activities and value creation.

Following the above discussion and under the institutionalized context, I would expect that the management of American firms, through environmental and social performance, differ between the UNGC and the GRI. Figure 4.1 depicts the direction of the hypotheses.

H3a. Social performance is different for the adoption of the GRI and the UNGC

H3b. Environmental performance is different for to the adoption of the GRI than for the UNGC.

Theoretical Model

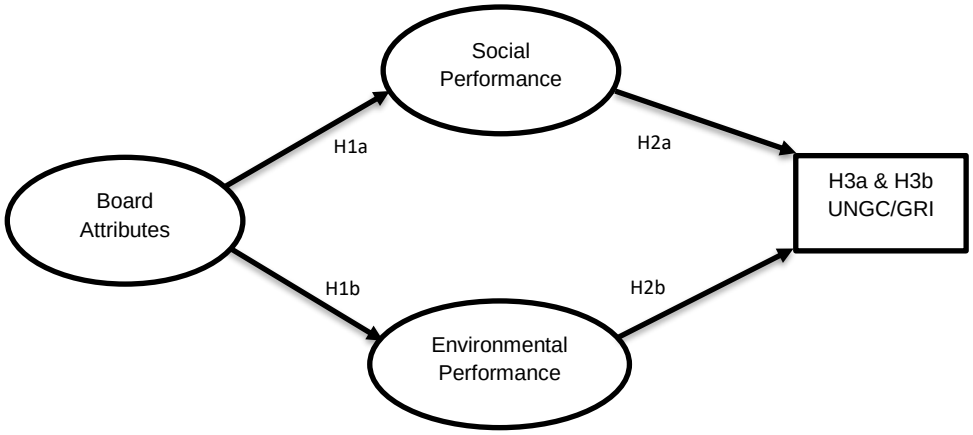


Figure 4.1 This figure shows the relationship between the board attributes and the UNGC/GRI. Environmental and social performance are used as mediators.

4.3. RESEARCH DESIGN

4.3.1. Data and Methods

I use Structural Equation Modelling (SEM) to analyse the link between board of directors, environmental and social performance and the adoption of voluntary initiatives (i.e. UNGC and GRI). According to Schumacker and Lomax (2010), SEM is a combination of regression analysis, path analysis and confirmatory factor analysis. By using regression model, we can understand the relationship between variables. Path analysis allows us how and why a variable affects the dependent variable, it is used as a mediator. And, finally, confirmatory factor analysis helps to integrate the unobserved variables. Therefore, SEM makes possible to work simultaneously with several equations involving paths and unobservable variables, a fact that is not possible when using other statistical techniques (Hair et al., 1995; Schumacker and Lomax, 2010). SEM also handle problems with endogeneity, for instance, Shaukat et

al. (2016) give preference to SEM over other multivariate analysis for controlling the endogeneity issues presented in their circular system of three equations with SEM. SEM has been used in similar studies in the field (Johnson and Greening, 1999; Mallin et al., 2013; Shaukat et al., 2016; Westphal, 1998).

In line with SEM literature, I employ Root-Mean-Square Error of Approximation (RMSEA), Tucker-Lewis Index (TLI), Bentler Comparative Fit Index (CFI), and Standardized Root-Mean Square Residual (SRMR) to test the statistical significance of the model (Hair et al., 1995; Johnson and Greening, 1999; Mallin et al., 2013; Schumacker and Lomax, 2010; Shaukat et al. 2016; Westphal, 1998). RMSEA is a global fit measure and an acceptable rank for this test is between 0.05 and 0.08. TLI and CFI equal to 1 indicate perfect fit, therefore values over 0.90 are acceptable. SRMR≤0.05 also indicates a good model fit. I use Stata15 for the computation of the results.

The first part of the model comprises the *Board Attributes*. *Board Attributes* is a latent variable constructed by four indicators: *female directors, independent directors, CSR committee and CEO duality*. The second part refers to the mediations of CSP in the adoption of the UNGC/GRI; this mediation is constituted by the latent variables *Environmental and Social Performance*. The former is generated by *resource reduction, product innovation, and emission reduction*, and the latter by *training and development, product responsibility, health and safety, human rights, employment quality, diversity and opportunities and community.* I test environmental and social performance separately because they tend to show different effects, particularly when it comes to the disclosure of corporate performance (Cormier, Ledoux and Magnan, 2011; Mallin et al., 2013; Shaukat et al., 2016). For instance, Mallin et al.'s (2013) find that firms with poor performance in the 'people' dimension

tend to report more and with more quality, suggesting that disclosure of information is used as a tool for legitimization. On the other hand, Mallin et al. (2013) also find that environmental performance is positively linked to both quality and extend of information. Finally, the dependent variables *UNGC/GRI* are the standardized measure of the adoption of the UNGC/GRI provided by ASSET4. Table 4.1 provides a description of the variables included in the models presented above and their source.

ASSET4 is a database that provides environmental, social and corporate governance data for over 5,000 firms from the most important and largest indices (MSCI, FTSE, S&P to name but a few). Data is gathered from publicly available sources (i.e. firm websites, financial and non-financial reports, NGOs websites and news) and also from initiatives as the Carbon Disclosure Project (i.e. CO_2 data) and the UNGC. Then, the data is classified into three pillars denominated: environmental performance, social performance, and corporate governance performance. The three pillars contain 15 categories obtained from 180 key performance indicators from 500 individual data points. While some information is updated daily (e.g. news), some other data is updated every year (i.e. annual reports). The data from each company is compared with the dataset universe (benchmark), and standardised (z-score) creating scores between 0 to 100% (Thomson Reuters, 2015)[24].

I control for a number of firm characteristics that has been widely used on prior similar studies. In all the models, I include *size* measured by *market value* (ln) and *number of employees* (ln). Larger companies are in the spotlight of larger groups of stakeholders, therefore the risk of exposure is higher, and they have more responsibilities towards those stakeholders. (Mallin and Michelon, 2011).

[24] In previous versions of the ASSET4 database, Thomson Reuters also considered the Economic Pillar; however, this pillar is still available to download. I do not use this information because it contains information related to client and shareholders loyalty and financial performance.

Furthermore, academic evidence also shows that size is positively related to CSR performance. The same pattern is followed by size and the adoption of the UNGC. *Profitability* is also considered in all the models as it has been shown that it has a positive impact on both the adoption of the UNGC and the implementation of social and environmental practices (Johnson and Greening 1999; Mallin and Michelon 2011). Conversely, *leverage* has a negative impact on environmental and social reporting (Cormier and Magnan 2003). Therefore, I expect a negative association with the UNGC. *Capital expenditure* represents the investments done in new technologies and machinery, which ideally will be more efficient and require fewer resources generating a higher and positive environmental performance (Clarkson et al., 2011, Shaukat et al., 2016). Prior literature on the voluntary adoption of CSR initiatives indicates that slack resources are negatively related to them (Perez-Batres et al., 2012).

Figure 4.6 shows the diagram of the theoretical model including all relationships. Rectangles represent observed variables whereas ellipses are latent or unobserved variables. The causal relationships are indicated with a one-direction arrow and correlations with a bidirectional arrow. Dashed lines represent control variables.

TABLE 4.1

Variables Description

Category	Measure	Measurement	Source
Strategy	UNGC/GRI Membership	Standardized score of the dummy variable equivalent to '1' if the firm is member of the UNGC/GRI in a given year and '0' otherwise.	ASSET4
Board Attributes	Board Gender Diversity	Percentage of women on the board of directors.	ASSET4
	Independent Board Members	Percentage of independent board members as reported by the company.	ASSET4
	CSR Committee	Dummy variable equivalent to '1' if the firm has a CSR committee in a given year and '0' otherwise.	ASSET4
	CEO Duality	Dummy variable indicating '1' if the CEO is simultaneously chair of the board and if the chair has been the CEO of the firm, '0' otherwise.	ASSET4
Environment	Resource Reduction	Percentage indicating a company's management commitment and effectiveness towards achieving an efficient use of natural resources in the production process. It reflects a company's capacity to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management.	ASSET4
	Product Innovation	Percentage showing a company's management commitment and effectiveness towards supporting the research and development of eco-efficient products or services. It reflects a company's capacity to reduce the environmental costs and burdens for its customers, and thereby creating new market opportunities through new environmental technologies and processes or eco-designed, dematerialized products with extended durability.	ASSET4
	Emission Reduction	Percentage for a company's management commitment and effectiveness towards reducing environmental emission in the production and operational processes. It reflects a company's capacity to reduce air emissions (greenhouse gases, F-gases, ozone-depleting substances, NOx and SOx, etc.), waste, hazardous waste, water discharges, spills or its impacts on biodiversity and to partner with environmental organisations to reduce the environmental impact of the company in the local or broader community.	ASSET4

TABLE 4.1 (Continued)

Variables Description

Category	Measure	Measurement	Source
Social	Training and Development	Percentage indicating a company's management commitment and effectiveness towards providing training and development (education) for its workforce. It reflects a company's capacity to increase its intellectual capital, workforce loyalty and productivity by developing the workforce's skills, competences, employability and careers in an entrepreneurial environment.	ASSET4
	Product Responsibility	Percentage indicating a company's management commitment and effectiveness towards creating value-added products and services upholding the customer's security. It reflects a company's capacity to maintain its license to operate by producing quality goods and services integrating the customer's health and safety, and preserving its integrity and privacy also through accurate product information and labelling.	ASSET4
	Health and Safety	Percentage indicating a company's management commitment and effectiveness towards providing high-quality employment benefits and job conditions. It reflects a company's capacity to increase its workforce loyalty and productivity by distributing rewarding and fair employment benefits, and by focusing on long-term employment growth and stability by promoting from within, avoiding lay-offs and maintaining relations with trade unions.	ASSET4
	Human Rights	Percentage indicating a company's management commitment and effectiveness towards respecting the fundamental human rights conventions. It reflects a company's capacity to maintain its license to operate by guaranteeing the freedom of association and excluding child, forced or compulsory labour.	ASSET4
	Employment Quality	Percentage indicating a company's management commitment and effectiveness towards providing high-quality employment benefits and job conditions. It reflects a company's capacity to increase its workforce loyalty and productivity by distributing rewarding and fair employment benefits, and by focusing on long-term employment growth and stability by promoting from within, avoiding lay-offs and maintaining relations with trade unions.	ASSET4

TABLE 4.1 (Continued)

Variables Description

Category	Measure	Measurement	Source
Social	Diversity and Opportunities	Percentage indicating a company's management commitment and effectiveness towards maintaining diversity and equal opportunities in its workforce. It reflects a company's capacity to increase its workforce loyalty and productivity by promoting an effective life-work balance, a family friendly environment and equal opportunities regardless of gender, age, ethnicity, religion or sexual orientation.	ASSET4
	Community	Percentage indicating a company's management commitment and effectiveness towards maintaining the company's reputation within the general community (local, national and global). It reflects a company's capacity to maintain its license to operate by being a good citizen (donations of cash, goods or staff time, etc.), protecting public health (avoidance of industrial accidents, etc.) and respecting business ethics (avoiding bribery and corruption, etc.).	ASSET4
Control	Market Value (ln)	Natural logarithm of the Market Value on Datastream. It is the share price multiplied by the number of ordinary shares in issue. The amount in issue is updated whenever new tranches of stock are issued or after a capital change.	Datastream
	Employees (ln)	Natural logarithm of the number of both full and part time employees of the company. It excludes: seasonal employees and emergency employees.	Worldscope
	ROE	Profitability ratio. It represents the value of: (Net Income – Bottom Line - Preferred Dividend Requirement) / Average of Last Year's and Current Year's Common Equity * 100	Worldscope
	Leverage	Gearing ratio. Determined as: Total Debt to Capital (long term debt + short term debt & current portion of long term debt/total capital +short term debt & current portion of long-term debt *100).	Worldscope
	Slack Resources	Ratio of the Sum of Cash plus short-term investment and total receivables to book value of total assets.	Calculate with data from Worldscope
	Capital Expenditure	Ratio of Capital Expenditure / Net Sales or Revenues * 100	Worldscope

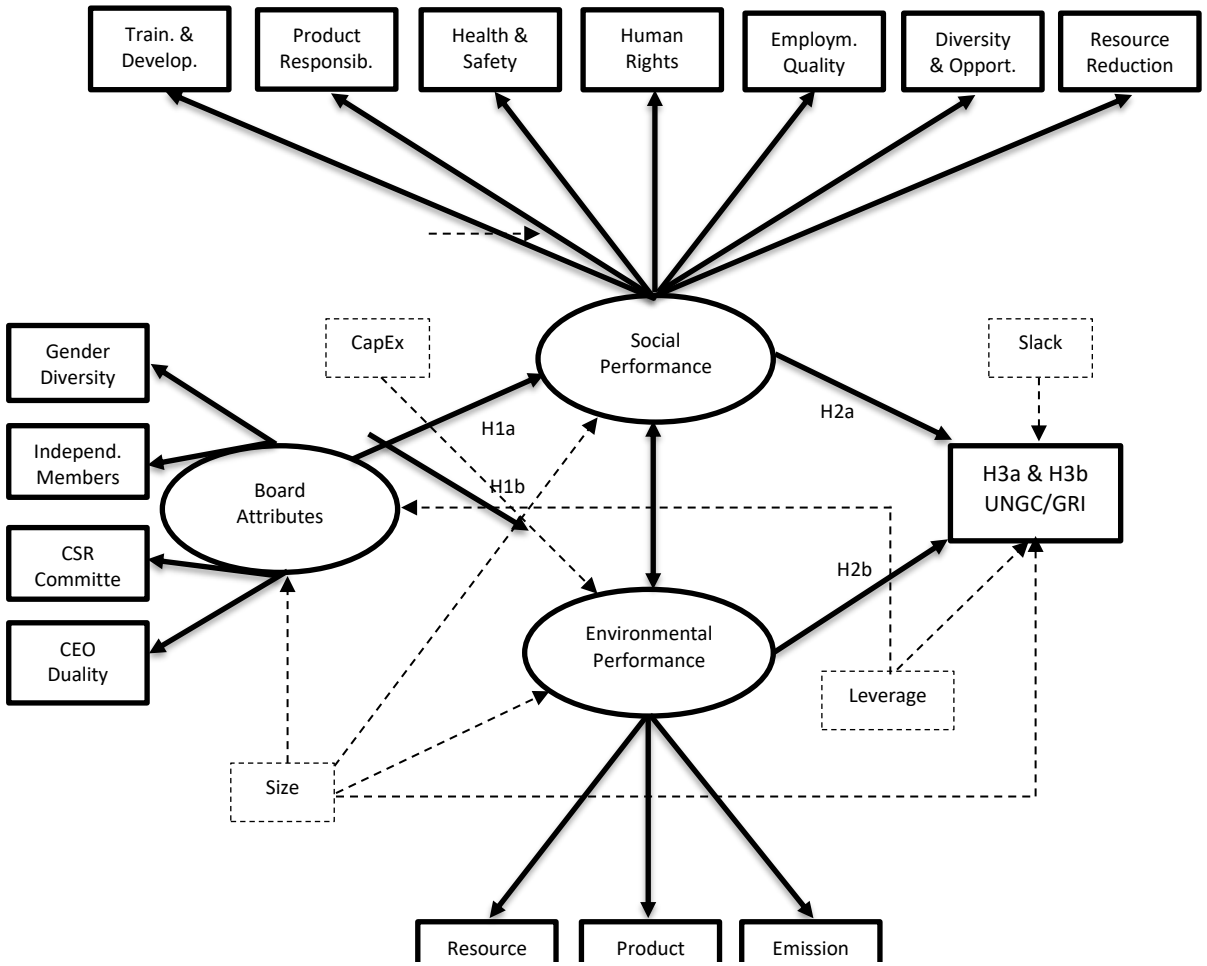


Figure 4.2 Theoretical Model with variable measurements

4.3.2. Sample Description

The sample of this study covers US-based firms over the period 2002-2013 included in ASSET4 databased. The period starts in 2002 because that is the year when the collection of the environmental, social and corporate governance began, and concludes in 2013, year with the most complete dataset at the time of collection. The pooled cross-sectional and time-series panel includes 7,492 observations, which is the intersection of the environmental and social information with the financial information and represents 1,011 firms. The number of firms is the result of firms appearing for more than one year in sequence and the loss of observations due to the lack of financial data. I retrieve financial data from Worldscope and Datastream.

Table 4.2 Panel 1 describes the sample by industry and year. As we can observe, overall, most of the firms belong to the industrials category (e.g. construction and materials, and industrial goods and services) followed by consumer services (includes retail, media and travel and leisure), technology (software and computer services, and technology hardware and equipment) and financials (banks, insurance, real estate, financial services). Telecommunications (fixed line telecommunications and mobile telecommunications) is the less representative industry. These patterns seem to be constant over time. Regarding the distribution of firms, the figure increases from 316 firms in 2002 to 772 in 2013, with the highest pick in 2010. Panels 2 and 3 in Table 4.2 show the number of observations per industry per year for the UNGC and the GRI respectively. The number of observations for each of the initiatives increases over time, being higher for the GRI. I tested the independence between observations in both initiatives and results show they are not related ($X^2 = 880.85$, $p<0.001$). This is important because despite firms can use the GRI as part of the COP, we still can

consider that firms in this sample participating in the UNGC are not related to those in the GRI.

The descriptive statistics and the correlation of all numeric variables are shown in Table 4.3. The correlation matrix shows the expected high correlation between environmental and social score, and mean values of 43.5% and 46% respectively. There is also high correlation between environmental score and its three components: resource reduction, product innovation and emission reduction, which show a mean of 44%, 45% and 42% respectively. On the other hand, social components (training and development, product responsibility, health and safety, human rights, employment quality, diversity and opportunities and community) are also correlated with its base: the social score. All social components show an average between 42% and 51%. All other values are moderate, suggesting no problems with multicollinearity. Furthermore, we can observe that on average only 13.4% of firms have females included in their board of directors and around 75% have independent directors. The control variables market value (ln), number of employees (ln), ROE, leverage, slack resources and capital expenditure show averages of 8.81, 9.31, 17.95%, 37.19%, 25.40%, and 13% respectively. Table 4.4 and 4.5 shows the distribution and characteristics of the sample by industry and by year.

TABLE 4.2

Sample Description

Industry	Obs	02	03	04	05	06	07	08	09	10	11	12	13
Panel 1. Full Sample													
Oil & Gas	561	17	19	34	37	37	46	60	64	64	62	60	61
Basic Materials	461	19	19	27	36	35	39	43	48	50	51	47	47
Industrials	1,337	51	57	77	85	87	87	128	150	154	154	156	151
Consumer Goods	868	44	46	55	64	62	65	83	90	95	94	88	82
Healthcare	683	35	37	54	55	54	55	61	70	71	66	62	63
Consumer Services	1,189	45	51	68	88	89	87	110	125	130	135	131	130
Telecommunications	116	6	6	6	7	8	10	12	13	13	12	13	10
Utilities	501	24	29	35	38	39	37	48	56	54	48	48	45
Financials	798	24	26	51	57	60	57	77	87	88	92	91	88
Technology	978	51	56	67	74	72	73	83	97	106	106	98	95
Total	**7,492**	**316**	**346**	**474**	**541**	**543**	**556**	**705**	**800**	**825**	**820**	**794**	**772**
Panel 2. UNGC Members													
Oil & Gas	12	1	1	1	1	1	1	1	1	1	1	1	1
Basic Materials	40	1	1	1	2	2	3	3	4	4	4	7	8
Industrials	51	0	1	1	3	3	3	4	5	6	7	9	9
Consumer Goods	72	0	0	1	3	3	4	6	9	10	11	12	13
Healthcare	35	1	1	1	1	1	1	1	4	6	6	6	6
Consumer Services	25	0	0	1	2	1	2	3	3	2	3	4	4
Telecommunications	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	1	0	0	0	0	0	0	0	0	1	0	0	0
Financials	14	0	0	0	0	0	1	1	2	2	2	3	3
Technology	65	1	1	2	2	3	5	6	8	8	9	10	10
Total	**315**	**4**	**5**	**8**	**14**	**14**	**20**	**25**	**36**	**40**	**43**	**52**	**54**
Panel 3. GRI Members													
Oil & Gas	92	0	0	0	1	3	8	10	12	13	13	17	15
Basic Materials	155	0	1	1	2	5	6	16	18	25	27	28	26
Industrials	177	0	1	1	0	2	11	16	21	30	29	31	35
Consumer Goods	242	0	3	3	6	5	21	29	32	30	39	36	38
Healthcare	109	1	1	1	2	0	9	9	12	17	18	21	18
Consumer Services	114	0	1	0	1	0	5	9	18	18	20	21	21
Telecommunications	12	0	0	0	0	0	2	1	1	1	3	3	1
Utilities	155	0	1	1	3	5	9	18	22	23	23	25	25
Financials	68	0	0	0	0	1	4	4	7	8	11	15	18
Technology	177	3	4	5	5	7	13	18	19	24	24	28	27
Total	**1,301**	**4**	**12**	**12**	**20**	**28**	**88**	**130**	**162**	**189**	**207**	**225**	**224**

Note: This Table shows the distribution of 7,492 observations for the period 2002 – 2013 reported by ASSET4. Panel 1 presents the number of observations for the full sample, Panel 2 for UNGC members and Panel 3 for GRI members.

TABLE 4.3

Correlation Matrix and Descriptive Statistics

	Variable	1	2	3	4	5	6	7	8	9	10	11
1	Board Gender Diversity	1.000										
2	Independent Board Members	0.182***	1.000									
3	CSR Committee	0.251***	0.244***	1.000								
4	CEO Duality	0.031	0.086***	0.054***	1.000							
5	Env Score	0.262***	0.256***	0.587***	0.059***	1.000						
6	Resource Reduction	0.283***	0.245***	0.560***	0.054***	0.928***	1.000					
7	Product Innovation	0.163***	0.204***	0.425***	0.049**	0.823***	0.633***	1.000				
8	Emission Reduction	0.256***	0.238***	0.596***	0.062***	0.926***	0.847***	0.631***	1.000			
9	Social Score	0.294***	0.271***	0.529***	0.066***	0.771***	0.757***	0.578***	0.740***	1.000		
10	Training and Development	0.251***	0.224***	0.447***	0.047**	0.625***	0.618***	0.467***	0.604***	0.797***	1.000	
11	Product Responsibility	0.099***	0.141***	0.221***	0.027	0.413***	0.376***	0.403***	0.348***	0.577***	0.364***	1.000
12	Health and Safety	0.165***	0.221***	0.441***	0.054***	0.650***	0.614***	0.487***	0.650***	0.726***	0.506***	0.343***
13	Human Rights	0.250***	0.154***	0.430***	0.027	0.583***	0.599***	0.459***	0.528***	0.662***	0.466***	0.308***
14	Employment Quality	0.174***	0.174***	0.284***	0.061***	0.380***	0.379***	0.252***	0.390***	0.623***	0.442***	0.247***
15	Diversity and Opportunities	0.264***	0.225***	0.398***	0.059***	0.538***	0.540***	0.380***	0.529***	0.747***	0.575***	0.310***
16	Community	0.258***	0.213***	0.407***	0.064***	0.600***	0.588***	0.418***	0.599***	0.772***	0.568***	0.348***
17	Market Value (ln)	0.176***	0.116***	0.298***	0.039	0.429***	0.421***	0.303***	0.447***	0.478***	0.410***	0.156***
18	Employees (ln)	0.258***	0.071***	0.261***	-0.005	0.424***	0.431***	0.320***	0.395***	0.496***	0.450***	0.261***
19	ROE	0.0415+	0.020	0.020	-0.007	0.023	0.019	0.022	0.023	0.036	0.024	0.010
20	Leverage	0.080***	0.058***	0.097***	0.005	0.087***	0.078***	0.030	0.115***	0.031	0.015	-0.039
21	Slack Resources	-0.043*	-0.024	-0.068***	0.020	-0.034	-0.041	0.051**	-0.083***	-0.016	-0.034	0.113***
22	Capital Expenditure	-0.121***	-0.057***	-0.066***	0.019	-0.106***	-0.100***	-0.109***	-0.076***	-0.162***	-0.133***	-0.154***
	Mean	0.134	0.747	0.329	0.983	0.435	0.440	0.446	0.423	0.460	0.416	0.486
	Std. Dev.	0.094	0.167	0.470	0.131	0.311	0.317	0.295	0.308	0.287	0.296	0.282
	Min	0.000	0.014	0.000	0.000	0.083	0.068	0.084	0.073	0.036	0.051	0.025
	Max	0.600	0.948	1.000	1.000	0.973	0.974	0.997	0.980	0.989	0.968	0.990

The table shows the Pearson's correlation for 7,492 observations for the period 2002-2013. ***p<0.001; **p<0.01; *p<0.05; +p<0.10. This table also shows the descriptive statistics for all numeric variables.

TABLE 4.3 (Continued)

Correlation Matrix and Descriptive Statistics

	Variable	12	13	14	15	16	17	18	19	20	21	22
12	Health and Safety	1.000										
13	Human Rights	0.434***	1.000									
14	Employment Quality	0.333***	0.285***	1.000								
15	Diversity and Opportunities	0.456***	0.404***	0.442***	1.000							
16	Community	0.525***	0.399***	0.412***	0.529***	1.000						
17	Market Value (ln)	0.362***	0.335***	0.311***	0.412***	0.370***	1.000					
18	Employees (ln)	0.329***	0.438***	0.193***	0.360***	0.400***	0.493***	1.000				
19	ROE	0.032	0.031	0.019	0.025	0.033	0.056***	0.025	1.000			
20	Leverage	0.067***	-0.036	0.008	0.047**	0.069***	-0.060***	0.022	0.041+	1.000		
21	Slack Resources	-0.046**	0.021	-0.026	-0.011	-0.066***	-0.045*	-0.033	0.023	-0.398***	1.000	
22	Capital Expenditure	-0.085***	-0.150***	-0.059***	-0.097***	-0.122***	-0.059***	-0.355***	-0.040	0.122***	-0.245***	1.000
	Mean	0.448	0.434	0.483	0.503	0.495	8.815	9.308	0.180	0.372	0.254	0.130
	Std. Dev.	0.294	0.300	0.277	0.282	0.305	1.193	1.555	1.722	0.243	0.177	0.314
	Min	0.029	0.021	0.029	0.045	0.027	3.829	1.792	-32.294	0.000	0.001	0.000
	Max	0.995	0.999	0.983	0.988	0.974	13.146	14.604	104.000	3.391	0.950	4.771

The table shows the Pearson's correlation for 7,492 observations for the period 2002-2013. ***p<0.001; **p<0.01; *p<0.05; +p<0.10. This table also shows the descriptive statistics for all numeric variables.

TABLE 4.4

Distribution and Characteristics of the Sample by Industry

Variable	Oil & Gas	Basic Materials	Industrials	Consumer Goods	Healthcare	Consumer Services	Telecommunications	Utilities	Financials	Technology
Board Gender Diversity	0.0696	0.1163	0.1137	0.1766	0.1482	0.1638	0.1403	0.1621	0.1263	0.1127
Independent Board Members	0.7585	0.7677	0.7737	0.7405	0.7597	0.6947	0.7309	0.8058	0.7123	0.7517
Environmental Score	0.3798	0.5897	0.4705	0.5393	0.3712	0.3418	0.3809	0.5926	0.2631	0.4754
Resource Reduction	0.3769	0.5627	0.4559	0.5511	0.3901	0.3901	0.3601	0.5622	0.2831	0.4717
Product Innovation	0.3477	0.5744	0.5248	0.5332	0.3864	0.3427	0.4408	0.4654	0.3121	0.5230
Emission Reduction	0.4361	0.5828	0.4267	0.5027	0.3683	0.3240	0.3581	0.6732	0.2551	0.4366
Social Score	0.4112	0.5623	0.4789	0.5495	0.4693	0.4213	0.4385	0.5379	0.2893	0.4790
Training and Development	0.3682	0.4725	0.4277	0.4705	0.4191	0.4186	0.4118	0.4756	0.2909	0.4198
Product Responsibility	0.3486	0.5801	0.5658	0.5546	0.5621	0.4017	0.3895	0.4366	0.3441	0.5505
Health and Safety	0.5463	0.6701	0.4798	0.5206	0.4505	0.3247	0.3904	0.5611	0.2550	0.4326
Human Rights	0.3704	0.4985	0.4330	0.6199	0.3656	0.4719	0.4192	0.3474	0.2665	0.4629
Employment Quality	0.4610	0.5224	0.4620	0.4827	0.5105	0.4491	0.5356	0.5824	0.4531	0.4942
Diversity and Opportunities	0.4734	0.4777	0.4769	0.5310	0.5431	0.5052	0.5543	0.5655	0.4231	0.5429
Community	0.4594	0.5755	0.5152	0.5506	0.4735	0.4793	0.4651	0.6579	0.3428	0.4767
Market Value (ln)	9.0448	8.5846	8.6530	8.8519	9.0796	8.7394	9.2105	8.8325	8.7986	8.8429
Employees (ln)	8.3861	9.1504	9.8827	9.7799	9.2265	10.3274	9.7921	8.8411	7.7031	9.0142
ROE	0.0894	0.1661	0.1759	0.4734	0.1147	0.1633	-0.0395	0.1043	0.1992	0.0952
Leverage	0.3259	0.4138	0.3650	0.4194	0.3174	0.3437	0.5996	0.5737	0.4928	0.1895
Slack Resources	0.1655	0.2140	0.2768	0.2543	0.3163	0.2165	0.1134	0.0889	0.1765	0.4590
Capital Expenditure	0.4580	0.0994	0.0476	0.0335	0.0800	0.0812	0.1572	0.1980	0.3123	0.0657

This table shows the means of all variables by industry for the 7,492 firm-year observations contained in the sample.

TABLE 4.5

Distribution and Characteristics of the Sample by Year

Variable	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Female	0.1101	0.1202	0.1207	0.1284	0.1332	0.1362	0.1306	0.1298	0.1313	0.1374	0.1456	0.1538
Independent	0.5606	0.6482	0.7280	0.7434	0.7480	0.7154	0.7320	0.7359	0.7804	0.7846	0.7980	0.7974
Environmental Score	0.3469	0.3471	0.3784	0.3960	0.3983	0.4379	0.4273	0.4355	0.4592	0.4723	0.4820	0.4876
Resource Reduction	0.3475	0.3416	0.3743	0.4005	0.4040	0.4411	0.4315	0.4387	0.4648	0.4795	0.4955	0.5023
Product Innovation	0.3725	0.3712	0.3924	0.4115	0.4125	0.4442	0.4444	0.4472	0.4687	0.4820	0.4869	0.4863
Emission Reduction	0.3557	0.3594	0.3878	0.3978	0.3968	0.4275	0.4109	0.4214	0.4399	0.4470	0.4563	0.4647
Social Score	0.3449	0.3633	0.4215	0.4433	0.4509	0.4913	0.4642	0.4642	0.4812	0.4884	0.4816	0.4889
Training and Development	0.3293	0.3325	0.3826	0.3920	0.3833	0.4373	0.4216	0.4263	0.4445	0.4414	0.4338	0.4431
Product Responsibility	0.3930	0.4046	0.4660	0.4821	0.4859	0.5044	0.4876	0.4914	0.5015	0.5026	0.5014	0.5029
Health and Safety	0.3921	0.4113	0.4287	0.4643	0.4698	0.4788	0.4547	0.4461	0.4440	0.4466	0.4468	0.4517
Human Rights	0.3667	0.3649	0.3818	0.3885	0.3921	0.4221	0.4142	0.4219	0.4331	0.4728	0.5036	0.5159
Employment Quality	0.3618	0.3707	0.4212	0.4290	0.4432	0.5088	0.5000	0.4923	0.5188	0.5307	0.5129	0.5218
Diversity and Opportunities	0.3953	0.4174	0.4566	0.4781	0.4913	0.5180	0.5153	0.5194	0.5464	0.5345	0.5160	0.5121
Community	0.4130	0.4467	0.4841	0.5102	0.5269	0.5467	0.5002	0.4959	0.4918	0.4958	0.4859	0.4900
Market Value (ln)	8.6326	9.0324	8.9448	9.1199	9.2222	9.1641	8.2937	8.5694	8.7035	8.6433	8.7613	9.0459
Employees (ln)	9.6777	9.7651	9.4122	9.5244	9.5749	9.4849	9.2697	9.0947	9.0664	9.1410	9.1934	9.2286
ROE	0.0605	0.1380	0.1777	0.2375	0.2016	0.2959	0.1609	0.0692	0.1521	0.1613	0.1654	0.3026
Leverage	0.4097	0.3841	0.3603	0.3541	0.3510	0.3639	0.4032	0.3690	0.3498	0.3687	0.3791	0.3854
Slack Resources	0.2489	0.2547	0.2617	0.2612	0.2482	0.2463	0.2368	0.2589	0.2672	0.2589	0.2500	0.2513
Capital Expenditure	0.1098	0.0815	11.4669	0.1078	0.1269	0.1623	0.1439	0.1180	0.1337	0.1367	0.1395	0.1388

This table shows the means of all variables by Year for the 7,492 firm-year observations contained in the sample.

4.4. RESULTS

4.4.1. SEM Results

In this section, I show the results of the theorized model for the relationship between board attributes, environmental and social performance, and the adoption of the UNGC/GRI. First, I discuss the goodness of fit of the model. Then, I comment on the three measurement modes: board characteristics, environmental and social performance. Finally, I present the results for the structural model. The interpretation of the results are presented in Section 4.5.

Table 4.6 reports that the goodness of fit criteria support the fit of the model for the adoption of the UNGC. RMSEA is a good measure for large samples for the fit of a given model based on its X^2 (Hair et al., 1995; Mallin et al., 2013). The RMSEA for the model I am presenting is equal to 0.058, which is within the acceptable range of 0.05-0.08. SRMR equals 0.033, which is less than 0.05, and therefore, this measure also supports my model. The last two measures are CFI and TLI both of them compare the proposed model with a null model. CFI equals 0.928 and TLI equals 0.911, very close to 1, which indicate a good fit (Hair et al., 1995; Schumacker and Lomax, 2010). Regarding the measurement models, all the coefficients of the indicators for the latent variable Board of Directors (BoD) are significant at 99.9%. The BoD is mainly driven by the existence of the CSR Committee (coefficient is equal to 0.655 at 0.001 level) followed by gender diversity and independent members with coefficients of 0.386 and 0.343, respectively, both at 0.001 level. CEO duality has a rather small impact in comparison to the other indicators with a coefficient of 0.079 at 0.001 level.

Table 4.6

Results of SEM (UNGC)

Structural Model

Independent Variables	Dependent Variables			
	UNGC	**BoD**	**Environmental**	**Social**
BoD			0.718***	0.636***
Environmental Performance	0.059*			
Social Performance	0.211***			
Market Value	0.062***	0.295***	0.124***	0.165***
Number Employees	0.016	0.222***	0.121***	0.228***
Slack	0.060***			
Leverage	-0.038**	0.144***		
CapEx			-0.004	-0.004
Intercept	1.008***			
cov(e.Environment,e.Social)			0.664***	

Measurement Model

Indicators	BoD	
	Coefficient	**Intercept**
Board Gender Diversity	0.386***	-0.014
Independent Board Members	0.343***	3.197***
CSR Committee	0.761***	-2.139***
CEO Duality	0.079***	7.202***
cov(e.women,e.csr_com)	-0.079**	
cov(e.independent,e.ceo_dual)	0.063***	

Indicators	Environmental	
	Coefficient	**Intercept**
Resource Reduction	0.919***	-2.637***
Product Innovation	0.687***	-1.498***
Emission Reduction	0.921***	-2.663***

Indicators	Social	
	Coefficient	**Intercept**
Training and Development	0.766***	-2.376***
Product Responsibility	0.459***	-0.546***
Health and Safety	0.708***	-1.97***
Human Rights	0.641***	-1.720***
Employment Quality	0.510***	-0.778***
Diversity and Opportunities	0.689***	-1.619***
Community	0.726***	-1.961***

$X^2(146) = 3{,}738.41$, Prob > $X^2 = 0.0000$	
RMSEA	0.058
SRMR	0.033
CFI	0.928
TLI	0.911

Notes: [a]Constrained. Number of observations = 7,492. Table shows standardizedcoefficients.

+ p<0.1, * p<0.05, **p<0.01, *** p<0.001

In relation to the Environmental and Social latent variables, all the loadings of the indicators are highly significant ($p<0.001$). In the case of the Environmental latent variable, resource reduction and emissions reduction have a stronger link (0.919 and 0.921, respectively) then product reduction (0.687). The links between indicators and the Social latent variable vary from 0.459 to 0.766, being product responsibility the weakest and training and development the strongest. Environmental and Social latent variables show a strong correlation (0.664, $p<0.001$).

In regard to the main part of the model, I found strong and significant evidence in support of the argument (H1a and H1b) that board attributes with a CSR orientation tend to support environmental and social performance (0.718 and 0.636, respectively, $p<0.001$). In terms of the adoption of the UNGC, results show a significant but small impact from environmental performance (0.059, $p<0.05$) while social performance has a slightly larger and significant association (0.211, $p<0.001$). Therefore, the positive relationship between CSP and the UNGC depicted on H2a and H2b is supported. As expected, size, measured by market value and number of employees, is highly significant in most of the cases. Profitability was tested in the original model but was not significant and did not provide any support for the final model. The positive coefficient of slack resources (0.060, $p<0.001$) does not support the argument presented. Leverage is negatively and significantly related to the adoption of the UNGC (-0.038, $p<0.01$ and positively and significantly linked to the attributes of the board of directors (0.144, $p<0.001$). Contrary to previous research, I found negative but no significant impact of capital expenditure on environmental performance (-0.004, $p>0.10$) and on social performance (-0.004, $p>0.10$) (Shaukat et al., 2016). Table 4.7 show the correlation for the estimates and post estimation values.

Results for the GRI initiative are similar to those for the UNGC (see Table 4.8). The goodness of fit criteria also supports the GRI model with small differences in the coefficients (i.e. RMSEA, SRMR, CFI and TLI). We can also find these small differences in the coefficients of the measurement model, this is, in the board of directors, environmental and social indicators. In the structural model in addition to the differences in the coefficients, we can also observe differences in their significance. The main difference between the UNGC and GRI models relies on the independent variables affecting the adoption of the initiatives. Firms reporting under GRI principles tend to have higher environmental score coefficient than those reporting for the UNGC and are more significant (0.283, $p<0.001$). Likewise happens with the social score coefficient (0.384, $p<0.001$). Contrary to the UNGC model both aspects to measure size, market value and number of employees, are highly significant; however, the former is slightly smaller, and latter is negatively related. Slack resource and leverage are not significant for the adoption of the GRI.

Table 4.7

Correlation Matrix and Descriptive Statistics of Predicted Values

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 UNGC	1.000																
2 UNGC hat	0.325	1.000															
3 Resource Reduction	0.250	0.826	1.000														
4 Resource Reduction hat	0.285	0.894	0.950	1.000													
5 Product Innovation	0.204	0.637	0.633	0.710	1.000												
6 Product Innovation hat	0.285	0.894	0.950	1.000	0.710	1.000											
7 Emission Reduction	0.255	0.813	0.847	0.952	0.631	0.952	1.000										
8 Emission Reduction hat	0.285	0.894	0.950	1.000	0.710	1.000	0.952	1.000									
9 Training and Development	0.205	0.745	0.618	0.693	0.467	0.693	0.604	0.693	1.000								
10 Training and Development hat	0.314	0.947	0.865	0.944	0.651	0.944	0.860	0.944	0.804	1.000							
11 Product Responsibility	0.128	0.461	0.376	0.418	0.403	0.418	0.348	0.418	0.364	0.482	1.000						
12 Product Responsibility hat	0.314	0.947	0.865	0.944	0.651	0.944	0.860	0.944	0.804	1.000	0.482	1.000					
13 Health and Safety	0.241	0.682	0.614	0.695	0.487	0.695	0.650	0.695	0.506	0.744	0.343	0.744	1.000				
14 Health and Safety hat	0.314	0.947	0.865	0.944	0.651	0.944	0.860	0.944	0.804	1.000	0.482	1.000	0.744	1.000			
15 Human Rights	0.281	0.649	0.599	0.624	0.459	0.624	0.528	0.624	0.466	0.674	0.308	0.674	0.434	0.674	1.000		
16 Human Rights hat	0.314	0.947	0.865	0.944	0.651	0.944	0.860	0.944	0.804	1.000	0.482	1.000	0.744	1.000	0.674	1.000	
17 Employment Quality	0.110	0.494	0.379	0.442	0.252	0.442	0.390	0.442	0.442	0.536	0.244	0.536	0.333	0.536	0.285	0.536	1.000
18 Employment Quality hat	0.314	0.947	0.865	0.944	0.651	0.944	0.860	0.944	0.804	1.000	0.482	1.000	0.744	1.000	0.674	1.000	0.536
19 Diversity and Oportunities	0.213	0.674	0.540	0.611	0.380	0.611	0.529	0.611	0.575	0.724	0.310	0.724	0.456	0.724	0.404	0.724	0.442
20 Diversity and Oportunities hat	0.314	0.947	0.865	0.944	0.651	0.944	0.860	0.944	0.804	1.000	0.482	1.000	0.744	1.000	0.674	1.000	0.536
21 Community	0.182	0.689	0.588	0.665	0.418	0.665	0.599	0.665	0.568	0.762	0.348	0.762	0.525	0.762	0.399	0.762	0.412
22 Community hat	0.314	0.947	0.865	0.944	0.651	0.944	0.860	0.944	0.804	1.000	0.482	1.000	0.744	1.000	0.674	1.000	0.536
23 Board Gender Diversity	0.099	0.306	0.283	0.310	0.163	0.310	0.257	0.310	0.251	0.338	0.099	0.338	0.165	0.338	0.250	0.338	0.174
24 Board Gender Diversity hat	0.262	0.830	0.839	0.918	0.626	0.918	0.853	0.918	0.672	0.900	0.377	0.900	0.651	0.900	0.600	0.900	0.442
25 Independent Board Members	0.039	0.254	0.245	0.280	0.204	0.280	0.238	0.280	0.224	0.290	0.141	0.290	0.221	0.290	0.154	0.290	0.174
26 Independent Board Members hat	0.262	0.830	0.839	0.918	0.626	0.918	0.853	0.918	0.672	0.900	0.377	0.900	0.651	0.900	0.600	0.900	0.442
27 CSR Committee	0.177	0.571	0.560	0.645	0.425	0.645	0.596	0.645	0.447	0.624	0.221	0.624	0.441	0.624	0.431	0.624	0.284
28 CSR Committee hat	0.262	0.830	0.839	0.918	0.626	0.918	0.853	0.918	0.672	0.900	0.377	0.900	0.651	0.900	0.600	0.900	0.442
29 CEO Duality	0.013	0.068	0.054	0.067	0.049	0.067	0.062	0.067	0.047	0.069	0.027	0.069	0.054	0.069	0.027	0.069	0.061
30 CEO Duality hat	0.262	0.830	0.839	0.918	0.626	0.918	0.853	0.918	0.672	0.900	0.377	0.900	0.651	0.900	0.600	0.900	0.442
31 Environmental hat	0.285	0.894	0.950	1.000	0.710	1.000	0.952	1.000	0.693	0.944	0.418	0.944	0.695	0.944	0.624	0.944	0.442
32 Social hat	0.314	0.947	0.865	0.944	0.651	0.944	0.860	0.944	0.804	1.000	0.482	1.000	0.744	1.000	0.674	1.000	0.536
33 BoD hat	0.262	0.830	0.839	0.918	0.626	0.918	0.853	0.918	0.672	0.900	0.377	0.900	0.651	0.900	0.600	0.900	0.442
Mean	0.376	0.376	0.440	0.440	0.446	0.446	0.423	0.423	0.416	0.416	0.486	0.486	0.448	0.448	0.434	0.434	0.483
Std. Dev	0.130	0.040	0.317	0.282	0.295	0.196	0.308	0.275	0.296	0.216	0.282	0.123	0.294	0.198	0.300	0.183	0.277
Min	0.325	0.272	0.068	0.076	0.084	0.192	0.073	0.067	0.051	0.009	0.025	0.253	0.029	0.074	0.021	0.089	0.029
Max	1.000	0.494	0.974	1.008	0.997	0.840	0.980	0.976	0.968	0.932	0.990	0.780	0.995	0.922	0.999	0.872	0.983

Table 4.7 (Cont.)

Correlation Matrix and Descriptive Statistics of Predicted Values

Variable	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
18 Employment Quality hat	1.000															
19 Diversity and Oportunities	0.724	1.000														
20 Diversity and Oportunities hat	1.000	0.724	1.000													
21 Community	0.762	0.529	0.762	1.000												
22 Community hat	1.000	0.724	1.000	0.762	1.000											
23 Board Gender Diversity	0.338	0.264	0.338	0.258	0.338	1.000										
24 Board Gender Diversity hat	0.900	0.608	0.900	0.639	0.900	0.438	1.000									
25 Independent Board Members	0.290	0.225	0.290	0.213	0.290	0.182	0.388	1.000								
26 Independent Board Members hat	0.900	0.608	0.900	0.639	0.900	0.438	1.000	0.388	1.000							
27 CSR Committee	0.624	0.398	0.624	0.407	0.624	0.251	0.861	0.244	0.861	1.000						
28 CSR Committee hat	0.900	0.608	0.900	0.639	0.900	0.438	1.000	0.388	1.000	0.861	1.000					
29 CEO Duality	0.069	0.059	0.069	0.064	0.069	0.031	0.089	0.086	0.089	0.054	0.089	1.000				
30 CEO Duality hat	0.900	0.608	0.900	0.639	0.900	0.438	1.000	0.388	1.000	0.861	1.000	0.089	1.000			
31 Environmental hat	0.944	0.611	0.944	0.665	0.944	0.310	0.918	0.280	0.918	0.645	0.918	0.067	0.918	1.000		
32 Social hat	1.000	0.724	1.000	0.762	1.000	0.338	0.900	0.290	0.900	0.624	0.900	0.069	0.900	0.944	1.000	
33 BoD hat	0.900	0.608	0.900	0.639	0.900	0.438	1.000	0.388	1.000	0.861	1.000	0.089	1.000	0.918	0.900	1.000
Mean	0.483	0.503	0.503	0.495	0.495	0.134	0.134	0.747	0.747	0.329	0.329	0.983	0.983	1.276	0.133	0.135
Std. Dev	0.135	0.282	0.185	0.305	0.211	0.094	0.032	0.167	0.051	0.470	0.316	0.131	0.009	0.282	0.026	0.032
Min	0.229	0.045	0.154	0.027	0.098	0.000	0.079	0.014	0.660	0.000	-0.212	0.000	0.967	0.911	0.085	0.080
Max	0.805	0.988	0.946	0.974	0.998	0.600	0.207	0.948	0.863	1.000	1.053	1.000	1.003	1.843	0.195	0.209

Notes: This table shows the Pearson's correlation matrix and descriptive values for estimates and postestimation values (N=7,492). Board Gender Diversity hat, Independent Board Members hat, CSR Committee hat and CEO Duality hat have a correlation of 1 with the latent variable BoD. Resource Reduction hat, Product Innovation hat and Emission Reduction hat have a correlation of 1 with the latent variable Environment. The seven estimated indicators of Social Performance also have a correlation of 1 with the Soical variable. Each group of latent variable indicators also have a correlation of 1 among them. The means for all the pair of variables are identical. All the standard deviations of the predicted variables are smaller than the original values because some of the variation is not explained by the model. The standard deviation of the latent variable BoD is identical to the one for the predicted value of Board Gender Diversity because the latter was constrained equal to 1, and Environment has the same standard deviation than Resource Reduction for the same reason.

Table 4.8

Results of SEM (GRI)

Structural Model

Independent Variables	Dependent Variables			
	GRI	BoD	Environmental	Social
BoD			0.715***	0.636***
Environmental Performance	0.283***			
Social Performance	0.384***			
Market Value	0.041***	0.293***	0.127***	0.166***
Number Employees	-0.091***	0.222***	0.122***	0.229***
Slack	-0.001			
Leverage	-0.004	0.145***		
CapEx			-0.003	-0.004
Intercept	-1.220***			
cov(e.Environment,e.Social)			0.665***	

Measurement Model

Indicators	BoD	
	Coefficient	Intercept
Board Gender Diversity	0.387***	-0.012
Independent Board Members	0.340***	3.211***
CSR Committee	0.765***	-2.144***
CEO Duality	0.078***	7.205***
cov(e.women,e.csr_com)	-0.077***	
cov(e.independent,e.ceo_dual)	0.063***	

Indicators	Environmental	
	Coefficient	Intercept
Resource Reduction	0.917***	-2.628***
Product Innovation	0.687***	-1.498***
Emission Reduction	0.923***	-2.677***

Indicators	Social	
	Coefficient	Intercept
Training and Development	0.767***	-2.384***
Product Responsibility	0.455***	-0.526***
Health and Safety	0.709***	-1.980***
Human Rights	0.641***	-1.722***
Employment Quality	0.509***	-0.773***
Diversity and Opportunities	0.687***	-1.610***
Community	0.724***	-1.955***

$X^2(146) =$ 3784.93, Prob > $X^2 = 0.0000$	
RMSEA	0.058
SRMR	0.033
CFI	0.931
TLI	0.914

Notes: [a]Constrained. Number of observations = 7,492. Table shows standardized coefficients.

+ p<0.1, * p<0.05, **p<0.01, *** p<0.001

4.4.2. Sensitivity Analysis

In order to test the robustness of the results, I run a number of sensitivity tests. First, I include clustered standard errors by firm (Table 4.9 and Table 4.10). This is because I am using a panel data where there are observations belonging to the same firm over the period of study. The coefficients with clustered standard errors are similar to those in the base models. The measurement model remains that same than the base model. The coefficients for the structural models are the same but less significant than in the base model for the UNGC and keep the same significance for the GRI. Environmental performance and size are not significant under this model for UNGC. The only test that can be performed under these conditions is SRMR (0.033) which indicates a good fit of both models.

In another analysis, I substituted the environmental and social latent variables by the environmental and social scores provided by ASSET4 (Table 4.11 and Table 4.12). All goodness of fit criteria are met with this model (RMSEA, SRMR, CFI and TLI). The indicator loadings of the BoD are slightly smaller but keep the same significance. The coefficients from BoD to environmental and social scores and control variables are also smaller but highly significant as in the based models. Environmental performance is more significant and larger than in the original models for both initiatives. Social Performance is also highly significant but smaller than in the original models of both frameworks.

Table 4.9

Results of SEM with Clustered Standard Errors by Firm (UNGC)

Structural Model

Independent Variables	Dependent Variables			
	UNGC	**BoD**	**Environmental**	**Social**
BoD			0.718***	0.636***
Environmental Performance	0.059			
Social Performance	0.211**			
Market Value	0.062	0.294***	0.124***	0.167***
Number Employees	0.016	0.222***	0.122***	0.228***
Slack	0.060**			
Leverage	-0.038+	0.145***		
CapEx			-0.004+	-0.004***
Intercept	1.008**			
cov(e.Environment,e.Social)			0.667***	

Measurement Model

Indicators	BoD	
	Coefficient	**Intercept**
Board Gender Diversity	0.387***	-0.015
Independent Board Members	0.343***	3.198***
CSR Committee	0.761***	-2.137***
CEO Duality	0.079***	7.203***
cov(e.women,e.csr_com)	-0.073+	
cov(e.independent,e.ceo_dual)	0.063**	

Indicators	Environmental	
	Coefficient	**Intercept**
Resource Reduction	0.919***	-2.592***
Product Innovation	0.687***	-1.465***
Emission Reduction	0.921***	-2.618***

Indicators	Social	
	Coefficient	**Intercept**
Training and Development	0.766***	-2.399***
Product Responsibility	0.459***	-0.554***
Health and Safety	0.708***	-1.995***
Human Rights	0.641***	-1.737***
Employment Quality	0.510***	-0.792***
Diversity and Opportunities	0.689***	-1.639***
Community	0.726***	-1.982***
SRMR		0.033

Notes: [a]Constrained. Number of observations = 7,492. Standard errors adjusted for 1,011 clusters by firm.

+ p<0.1, * p<0.05, **p<0.01, *** p<0.001

Table 4.10

Results of SEM with Clustered Standard Errors by Firm (GRI)

Structural Model				
Independent Variables	**Dependent Variables**			
	GRI	**BoD**	**Environmental**	**Social**
BoD			0.715***	0.636***
Environmental Performance	0.283***			
Social Performance	0.383***			
Market Value	0.041+	0.294***	0.127***	0.167***
Number Employees	-0.091***	0.222***	0.122***	0.229***
Slack	-0.007			
Leverage	-0.004	0.143***		
CapEx			-0.004+	-0.004
Intercept	1.216***			
cov(e.Environment,e.Social)			0.665***	

Measurement Model		
Indicators	**BoD**	
	Coefficient	**Intercept**
Board Gender Diversity	0.387***	-0.012
Independent Board Members	0.341***	3.211***
CSR Committee	0.765***	-2.144***
CEO Duality	0.078***	7.203***
cov(e.women,e.csr_com)	-0.077+	
cov(e.independent,e.ceo_dual)	0.063**	

Indicators	**Environmental**	
	Coefficient	**Intercept**
Resource Reduction	0.917***	-2.637***
Product Innovation	0.687***	-1.498***
Emission Reduction	0.923***	-2.664***

Indicators	**Social**	
	Coefficient	**Intercept**
Training and Development	0.766***	-2.376***
Product Responsibility	0.459***	-0.546***
Health and Safety	0.708***	-1.974***
Human Rights	0.641***	-1.720***
Employment Quality	0.510***	-0.778***
Diversity and Opportunities	0.689***	-1.619
Community	0.726***	-1.961***
SRMR		0.033

Notes: [a]Constrained. Number of observations = 7,492. Standard errors adjusted for 1,011 clusters by firm.

+ p<0.1, * p<0.05, **p<0.01, *** p<0.001

Table 4.11

Results of SEM with Environmental and Social Scores (UNGC)

Structural Model

Independent Variables	Dependent Variables			
	UNGC	BoD	Environmental	Social
BoD			0.677***	0.574***
Environmental Performance	0.114***			
Social Performance	0.117***			
Market Value	0.084***	0.296***	0.099***	0.147***
Number Employees	0.039**	0.223***	0.123***	0.210***
Slack	0.058***			
Leverage	-0.033**	0.140***		
CapEx			-0.004	-0.005
Intercept	1.649***		-2.601***	-2.877***
cov(e.Environment,e.Social)				0.452***

Measurement Model

Indicators	BoD	
	Coefficient	Intercept
Board Gender Diversity	0.382***	0.002
Independent Board Members	0.346***	3.180***
CSR Committee	0.757***	-2.125***
CEO Duality	0.078***	7.203***
cov(e.women,e.csr_com)	-0.063**	
cov(e.independent,e.ceo_dual)	0.063***	
X^2 (146) = 3795.59, Prob > X^2 = 0.0000		
RMSEA		0.041
SRMR		0.021
CFI		0.974
TLI		0.955

Notes: [a]Constrained. Number of observations = 7,492.

+ p<0.1, * p<0.05, **p<0.01, *** p<0.001

Table 4.12

Results of SEM with Environmental and Social Scores (GRI)

Structural Model				
Independent Variables	Dependent Variables			
	GRI	BoD	Environmental	Social
BoD			0.677***	0.574***
Environmental Performance	0.344***			
Social Performance	0.253***			
Market Value	0.089***	0.296***	0.099***	0.147***
Number Employees	-0.049***	0.223***	0.123***	0.210***
Slack	-0.010			
Leverage	0.007	0.140***		
CapEx			-0.003	-0.005
Intercept	0.425		-2.602***	-2.877***
cov(e.Environment,e.Social)				0.452***

Measurement Model		
Indicators	BoD	
	Coefficient	Intercept
Board Gender Diversity	0.382***	0.002
Independent Board Members	0.347***	3.180***
CSR Committee	0.757***	-2.125***
CEO Duality	0.078***	7.203***
cov(e.women,e.csr_com)	-0.063**	
cov(e.independent,e.ceo_dual)	0.063***	
X^2 (146) = 3795.59, Prob > X^2 = 0.0000		
RMSEA		0.047
SRMR		0.022
CFI		0.971
TLI		0.949

Notes: [a]Constrained. Number of observations = 7,492.

+ p<0.1, * p<0.05, **p<0.01, *** p<0.001

4.5. DISCUSSION, LIMITATIONS AND FURTHER RESEARCH

I find a positive association from the CSR oriented board of directors to both environmental and social performance (H1a and H1b) which is in line with the arguments of the service role of the resource dependence theory. Surprisingly, the CEO duality coefficient is positive, but smaller than the other coefficients. According to Mallin et al., 2013, this positive relationship could be compared to the reputation created by a CSR oriented board showing that the firm's management is committed to its stakeholders. From the resource based view theory, we can learn that the board of directors can be used as a reputation instrument creating competitive advantage.

Also, in line with my predictions about the impact of environmental and social performance on the adoption of the UNGC/GRI (H2a, H2b and H3a), I find a positive link between both indicators and the adoption of voluntary CSR initiatives. However, we can observe that the social indicator is greater and more significant than the environmental one in both initiatives. This might suggest that firms joining these types of initiatives use them mainly to report activities related to their employees and community. An aspect that is odd is that in the case of GRI reporting the number of employees is significant and negative, contrary to previous literature that emphasize that the disclosure of environmental and social activities is positively related to large firms measured by the number of employees as the objective is to attract and retain employees (Griffin and Youm, 2018). This could be due to other stakeholders, like industry or community pressures that demand better social practices from companies but not necessarily in relation to employment.

Back to environmental performance, firms joining the UNGC barely report activities related to the management of carbon emissions for example where more appropriated initiatives might be considered (e.g. CDP, ISO 14000 or other industry

specific frameworks) (Chen and Bouvain, 2009). Likewise, Berliner and Prakash (2015) find that US firms, members of the UNGC, perform very poorly in comparison with non-members when implementing costly human rights and environmental programmes/activities. However, UNGC members can be distinguished for implementing superficial-low cost programmes. This is supported to some extend by the high coefficients in the training and development, and community indicators, and the lower coefficient of the product responsibility, the latter suggesting a higher demand of financial resources. Contrary to UNGC results and in line with this discussion, GRI show that environmental performance is higher and more significant within their members, these facts support H3a.

Like similar studies, mine does not come without limitations. First of all, the sample is limited to publicly traded firms provided by ASSET4, and therefore, information is investor driven. ASSET4 does good job in summarizing the policies, practices and programmes implemented by firms as well as outcomes for a number of categories, it will be interesting to split each category of CSP within processes and outputs (as suggested by Delmas, Etzion and Nairn-Birch, 2013) to have a better understanding of the decision to join to any initiative. I acknowledge the difference between performance and practices, and the information provided by CSP indexes (Gjolberg, 2009; Delmas et al., 2013; Chatterji, Levine and Toffel, 2009). CSP indexes have been used in the literature to explain research among them and the attributes of board of directors, corporate financial performance and CSR disclosure among others (see for instance Mallin et al., 2013; Perez-Batres et al., 2012; Shaukat et al., 2016).

Future research might test the model that I presented within other environments more prone to the adoption of the UNGC (i.e. Europe) where I would

expected strong and positive relationship between CSP and the UNGC. Furthermore, it would be interesting to see if the differences between social and environmental performance remain when comparing the UNGC and the GRI in a different institutional context (i.e. country or a specific industry). Another line of research could include the different levels of assessment of the COP in order to learn more about the reporting of members at the learners and advance level for instance. It would be interesting as well to include mechanisms to control for reverse causality as an extant literature considers if the UNGC improves CSP (Berliner and Prakash, 2015; Hamann et al., 2009).

4.6. CONCLUSIONS

The aim of this chapter is to shed some light in the relationship between the characteristics of the board of directors and the adoption of voluntary CSR initiatives as part of strategy to legitimize corporate practices. I focused on the UNGC and the GRI as instruments for disclosure of social and environmental corporate performance. My sample consisted of US-based firms listed in the ASSET4 database. The US provides an interesting context to test the linkages between corporate governance and CSR strategies presented by academic research (Liao et al., 2015; Mallin et al., 2013; Shaukat at al., 2016).

As we have learned from the resource dependence theory and research-based view, the board of directors influence the strategic plan in favour of responsible business which include attention for environmental and social issues (Johnson and Greening, 1999; Pfeffer and Salancik, 2003; Porter and Kramer, 2006). Aguilera et al. (2007) conclude that despite the wide spread diffusion of CSR practices; they change from environment to environment, as they are adapted to the local conditions showing

different results. This includes the adoption of worldwide voluntary initiatives, they are implemented by firms depending on the normative/mimetic pressures as in this case where the GRI is preferred over the UNGC and companies adopting the former tend to perform better than those in latter initiative.

My results might be of the interest of academics, stakeholders and practitioners. In the academic spectrum, I am providing further evidence of the linkage between boards of directors, corporate social performance and CSR strategy, relationship that has receive little attention. I also echoed Chen and Bouvain's (2009) suggestion about looking at internal motivations for UNGC adoption such as the characteristics of the management. For stakeholders as responsible investors the interest might be on how to use their power to shape the board in order to enhance CSP. For other stakeholders and practitioners, it might provide tools to evaluate and start a conversation about how to strength CSP and report improvements. My results are also relevant for strategy and accounting literature in the sense that the institutional context shape the way to account for corporate behaviour while gaining or reinforcing legitimacy. This work also concludes that there is not a theory that can explain the link between board of directors and the adoption of voluntary initiatives by itself but it requires the convergence of the fundamentals of at least institutional theory, resource dependence theory and resource base view.

CHAPTER 5

Conclusions

This thesis provides further evidence on what drives the adoption of the United Nations Global Compact (UNGC), one of the largest voluntary initiatives promoting corporate social responsibility (CSR). I explore this issue in three empirical chapters with different perspectives and using a variety of quantitative methods and techniques. In my first study (Chapter 2), I analyse the adoption of the UNGC through shareholder engagement. I test the effect of engagement and of a number of tactics employed in the engagement. I found that 'soft engagement' (e.g. invitation letters) from investors does not matter; however, it improves when the CEO and/or the chair of the board are contacted. Engagement also is shown to be useful in countries where there is support for CSR lobbying. This suggests that 'soft engagement' needs to present a strong business case in order to be successful. My second study investigates whether corporate social performance (CSP) and the existence of controversies are related to the adoption of the UNGC. In addition, this study deepens our knowledge on the level of CSP over time. Results show that environmental, social and governance performance are important but at difference points in time. I also found that controversies are not significant for becoming a UNGC member. The last empirical chapter considers the influence of CSR oriented boards of directors in the adoption of Voluntary CSR initiatives. I use CSP as the mediator of this relationship. I found positive relationships between directorates and CSP, and CSP and the UNGC/GRI;

this suggests that CSR oriented boards are significant predictors of the adoption of voluntary CSR initiatives.

CONTRIBUTIONS

The general contribution of this thesis is to add to the extensive literature on voluntary CSR initiatives in general and to the literature on the UNGC in particular. I focus on what Rasche et al., (2013) call the operational aspect of the initiative. The operational aspect involves research on motivations (Arevalo and Aravind, 2011; Cetindamar and Husoy, 2007; Janney et al., 2009; Pérez-Batres et al., 2011; Pérez-Batres et al., 2012), characteristics of participants (Bennie et al., 2007; Patrick and Forman, 2002; Perkins and Neumayer, 2010; Williams, 2007), and impact of the UNGC on firm performance (Arevalo 2010; Berliner and Prakash, 2014; Hamann et al., 2009; Gond and Piani, 2013; Runhaar and Lafferty, 2009; Schembera, 2016).

For Chapter 2, I had access to privileged data from a large field experiment carried out with a group of investors from the Principles for Responsible Investment, representing US$3.3 trillion in AUM, and with the UNGC. The experiment tested the effectiveness of soft engagement and of a number of tactics involved in the engagement. The UNGC was the object of the engagement, that is, investors invited target firms to join the initiative. My results show that CEOs and chairs listen to the demands of shareholders but the concerns expressed must be powerful in order to be successful (e.g. the business case). Furthermore, findings show that the institutional environment strengthens the decision to join the UNGC (that is, countries where CSR is prevalent are more likely to join the initiative). These findings are in line with those from Gifford (2009) showing that power, legitimacy and urgency are important factors for shareholder salience but pragmatic legitimacy and agreement with the values of

the management are necessary for engagement. Therefore, this paper adds to the literature on stakeholder engagement (Becht et al., 2008; Gifford, 2010; Gillan and Starks, 2007; Gond and Piani, 2013; Hamilton and Eriksson, 2010; Mackenzie et al., 2013; Vandekerckhove et al., 2007).

Chapter 3 and Chapter 4 explore the influence of CSP on the participation in the UNGC as part of corporate strategy. Both Chapters show that CSP is significant and positively related to the adoption of the UNGC. More specifically, Chapter 3 uses survival analysis to show how environmental, social and governance issues are relevant, and reveals that these characteristics are not constant, in terms of reasons for participation, but change over time for the three subsamples. Social performance characterized Group 1. In addition to social performance, corporate governance performance was a driver for Group 2 to adopt the initiative. Finally, environmental, social and corporate governance performance played an important role in the adoption of the initiative for Group 3. This suggests that firms become UNGC participants primarily to legitimize their practices and outcomes rather than to use it as a platform for learning.

In addition to the above findings, Chapter 3 also investigates the relationship between controversies and becoming a member of the UNGC. Contrary to my expectations, the results show that controversies are not significant for firms to decide to adopt the Ten Principles proposed by the UNGC. My findings contribute to the inconclusive debate about firms using the initiative to bluewash their reputation (Arevalo and Aravind, 2010; Bennie et al., 2007; Hamann et al., 2009).

In the same vein, but using structural equation modelling, Chapter 4 shows that environmental and social performance are significant for the adoption of the initiative. However, social performance increases the probability to join more than

environmental performance. My conclusion in this case is similar to that in the previous study: the UNGC and the GRI provide legitimacy for current environmental and social practices. However, the GRI seems to be more popular than the UNGC and also tends to gather firms with better environmental and social performance which might be an indicator of the institutional context (Bennie et al., 2007; Hemphill, 2005; Patrick and Forman, 2002). Another contribution of Chapter 4 is the fact of isolating the characteristics of the board from the CSP and considering it as a driver for the adoption of voluntary CSR initiatives. I look at gender diversity, independent directors, CSR committee and CEO duality as characteristics of a CSR oriented board. I found that certain types of boards, particularly with CSR committees, enhance UNGC membership. This Chapter contributes to the growing literature on the attributes of the board of directors and the selection of the CSR strategy (Mallin et al., 2013; Shaukat et al., 2016).

In general terms, this Thesis provides additional empirical support to Institutional Theory. Finding suggest that in order to help to improve CSP, stakeholder might approach those companies with less probability to sigh the UNGC as they are the most in need of guidance. Any intent to approach corporations in order to exert pressures to incorporate social and environmental actions, activities or programmes needs to be carefully study, this is, needs to be adapted to the institutional context where it will be applied. Furthermore, the UNGC is a double-edge weapon. It is a world-wide initiative under the umbrella of the United Nations that can assist corporations to gain legitimacy, and but at the same time it cannot be too restrictive, otherwise potential members, particularly those starting the learning curve, might not be attracted by it.

LIMITATIONS OF THE THESIS

Like other studies, the studies within this Thesis are not without limitations. The main limitation is perhaps that the three empirical studies rely heavily on information about listed firms, therefore adopting an investor approach. The results should not be compared to other types of participation in the UNGC (i.e. private or small business firms and non-business organizations).

Another limitation is the use of ASSET4 as a proxy for the various dimensions of CSP. Corporate Social Performance is a complex concept to capture. However, academic research often employs this database (Ioannou and Serafeim, 2012; Luo et al., 2015; Rees and Rodionova, 2013; Rees and Rodionova, 2015) and as it has been created for investors it has a certain legitimacy. ASSET4 has a number of advantages over other such as KLD. For instance, ASSET4 covers a larger number of firms worldwide and provides more detail about the aggregates of each dimension (Shaukat et al. 2016).

In Chapter 2 despite the exciting setting of the experiment, the secondary effect of the tactics (i.e. interactions of tactics) could not be calculated due to the low level of responses. The effectiveness of the various tactics used for engagement was a prime motivation for the PRI. However, for academic purposes, the low level of response made meaningful analysis of the experiment difficult.

The shortcomings in Chapter 3 are due to data limitations. The study considers as firms that joined from 2003 to 2011 rather than those that joined when the initiative was launched in 2000. This is because ASSET4 started collecting CSP in 2002, and as I included a CSP lagged variable, 2003 is the first available reading.

The results in Chapter 4 are obtained from employing SEM. I controlled for time invariant variables in the panel data but it could be the case that I missed other variables that affect my model and that change over time.

SUGGESTIONS FOR FURTHER RESEARCH

It would be interesting to test some of the tactics in the experiment on Chapter 2 but instead of just asking firms to join the UNGC, the invitation could highlight specific environmental and social weaknesses of target firms and how the UNGC can help them to improve. A more practical suggestion could be that responsible investors assume the role of auditors and review the COPs submitted by UNGC participants demanding further information where necessary.

Another line of research could be to split the environmental, social and corporate governance scores provided by ASSET4 in programmes and results. This would enhance the results in Chapter 3 and Chapter 4, particularly in the social aspect which is more difficult to measure in comparison to environmental practices and outcomes. An additional area to explore is who and why companies are delisted. In Chapter 4 there were not enough data available for my sample and the analysis was restricted to US firms because it had more variability; however, it was not possible to extend my statistical analysis. Therefore, I suggest that a different research design as surveys and websites analysis can provide more robust insights.

Overall, the UNGC is an important framework for enhancing reputation and legitimacy. However, those stakeholders interested in it (e.g. shareholders and NGOs) should take up UNGC membership with caution. In other words, participation in the UNGC is not as simple as a binary variable where firms are good or bad. Because the UNGC is a voluntary global initiative, there is no way that the initiative can demand

the same level of compliance to all its members. Nonetheless, the UNGC is establishing mechanisms to identify their level of commitment. These mechanisms could be used by stakeholders who want to improve any aspect related to environmental or social issues.

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